Solar-Geophysical Data Number 492 August 1985. Part 2 (Comprehensive Reports) Data for February 1985, August September 1983, and Miscellanea

(U.S.) National Geophysical Data Center Boulder, CO

Prepared for

National Aeronautics and Space Administration Washington, DC

Aug 85

U.S. Department of Communice Methods (Nedfolial Information Service



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Abstract: Contents: Detailed index for 1984-1985; Data for February 1985--Maudon carte synoptique, Solar radio bursts at fixed frequencies, Solar x-ray radiation from GOES satellite, Mass ejections from the sun, Active prominences and filaments; Data for August - September 1983--Solar flares August 1983, Solar flares September 1983, Number of flares August 1966 - September 1983.

AUGUST 1985 NUMBER 492 Part II

Solar-Geor 'ysical Data comprehensive reports



Data for February 1985, August-September 1983, and Miscellanea Explanation of Data Reports Issued as Number 489 (Supplement) May 1985

LATE DATA
GROUPED SOLAR FLARES AUG-SEP 1983

Pages 17-56

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NO. 492 AUGUST 1985

Part II (Comprehensive Reports)

Michael A. Chinnery, Director NATIONAL GEOPHYSICAL DATA CENTER BOULDER, COLORADO DATA FOR FEBRUARY 1985 AUGUST 1983 SEPTEMBER 1983

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NUMBER 492

(Issued in Two Parts)

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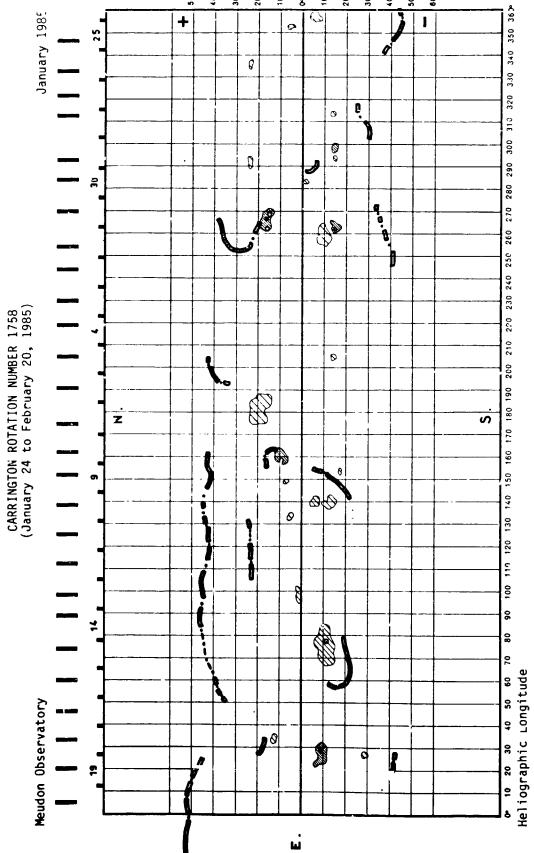
CARTE SYNOPTIQUE

A C T I V E R E G I O N S CARRINGTON ROTATION 1758

(24 January to 20 February 1985)

Region No.		inates Long.	Imp	Age at CMP (Days)	Spotiess Region	Region No. in Rotation 1757	Activity at West Limb
1	5°S	357	•	+5	×		disappeared
2	6°N	353	1	- 2	×		dispersed
3	15°S	298	1	-3	*		decreasing
4	17°N	267	3	0			decreasing
5	15°S	264	2	0			decreasing
6	19°N	182	1	>6	×		dispersed
7	10°N	161	1	0	×		decreasing
8	6 ° S	140	1	>6	×		dispersed
9	13°S	140	1	>6	×		dispersed
10	5°N	133	1	-1	×		disappeared
11	1°N	99	1	+5	×		dispersed
12	11°\$	⁷ 5	2	>6			decreasing
13	:2°N	34	1	0	×		disappeared
14	9°S	27	2	0			decreasing
15	29°S	27	1	+1	×		disappeared

SYNOPTIQUE CARTE



SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

FEBRUARY 1985

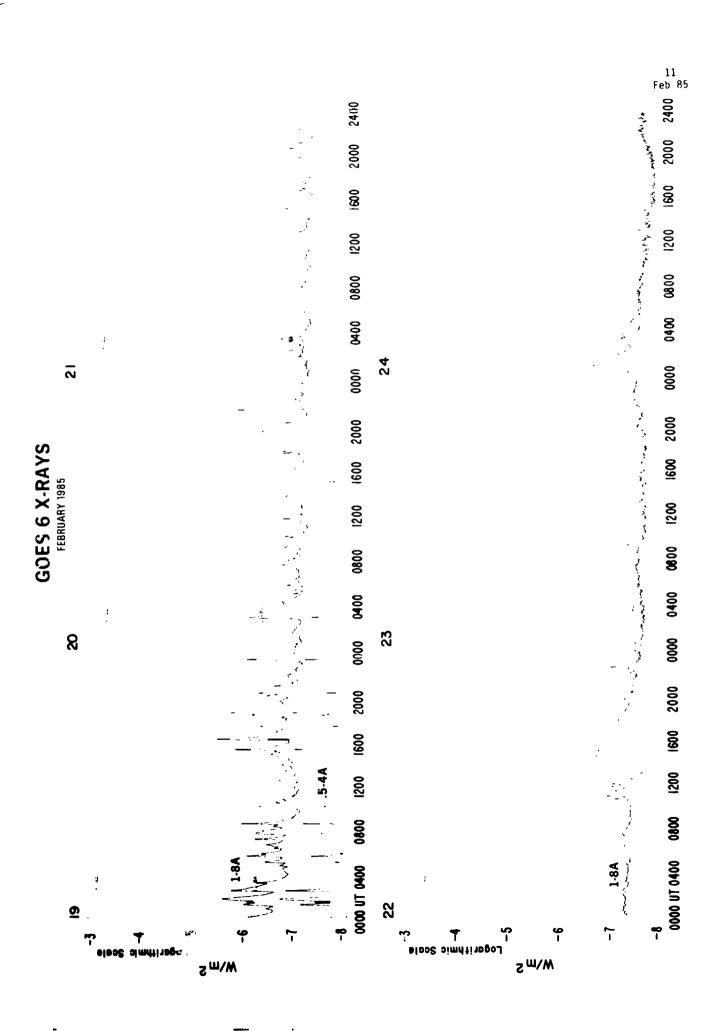
						t EBBB	IARY 1985				
Day	Freq	Sta	Туј	ре	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux D Peak (10 -22 w	Mean	Int	Remarks
02	260 = 1000 1000 9400 9400	TYKW HUAN		C	0824.0E 0313.5 0314.8 1717.8 1822.0	0314.) 0315.0 1742.4 1836.4	333.0D 1.0 .6 35.4 32.7	4.0 16.0 19.0 4.0 8.0	2.0 4.0 3.4 5.3		
03	260	KRAK	_	NS S S	0824.0E 0947.5 0947.5	0947.5 0947.5	308.0D .4 .2	5.0 5.0 19.0			
04	9400 9400	ONDR HUAN HUAN HUAN	22	NS GRF GRF GRF	0825.0E 1521.7 1634.6 1748.7	1539.3 1645.5 1803.1	347.00 39.5 18.8 39.6	5.0 5.4 5.4 8.1	2.8 2.5 2.7		
05		KRAK CNDR	8 41		1049.5 1056.0	1049.5 1057.8	.4 1.8	6.0			
06	L 29 430	UPIC UPIC KRAK KRAK	45 3		1001.0 1001.1 1054.0 1229.0	1001.7 1002.0 1054.5 1229.0	1.5 1.6 1.2	6.0 4.0	3.0		
07	C 2800			GRF GRF	1910.0 1916.8	1920. J 1934.8	120.0 19.4	2.8 5.1	1.3 1.0		
08	430 430 260 808	ONDR KRAK KRAK ONDR ONDR ONDR	2	5 5 5 C	0848.0 0933.0 1054.5 1137.2 1426.5 1431.0	0848.5 0933.5 1055.0 1137.5 1427.2 1431.0	1.0 .8 2.0 .7 1.0 2.0	7.0 5.0 3.0 5.0	3.0 2.0		
09	_	KR^K KRAK	8 8		1032.0 1036.5	1032.5 1036.5	.8 .2	6.0 7.0			
10	_	JNDR ONDR		S SER	1058.5 1151.8	1058.5 1200.5	.1 12.0	2, 0 5, 0			
11		HUAN HUAN		GRF GRF	1522.0 1930.1	1534.3 2015.0	34.5 99.1	5.3 6.0	2.7 1.2		
12			20 40	GRF GRF F GRF	0140.0 0150.0 1126.5 1648.6	0205.0U 0209.0 1135.0 1705.5U	60.0U 50.0 8.5 39.8	1.5U 1.0 78.0 5.5	.7U .5 2.9		INTERFERENCE
13	9400	HUAN	1	S	2021.8	2024.6	4.2	4.1	.5		
14		KRAK KRAK	2	S/F S/F	0914.0 0925.5	0914.5 0926.0	1.5 1.5	7.0 8.0	2.0 3.0		
15	9400	HUAN HUAN HUAN	20	ORF ORF ORF	1624.0 1740.2 1819.0	1643.7 1747.0 1829.3	29.7 14.6 21.3	5.2 3.9 7.7	2.1 2.4 4.4		
16	L ₈₀₈ 536	ONDR ONDR ONDR ONDR	40 40 40 42	F	0856.2 0858.3 0900.0 0922.5	0858.0 0858.5 0903.0 0925.0	10.0 4.5 7.0 2.5	1.0 44.0			
17	F 536 808 F 536 808 F 808 F 29 F 33	ONDR ONDR ONDR ONDR ONDR UPIC UPIC ONDR	40 40 40 40 40 2	F F S/F S/F	0.50 0910 0915 0917.5 1024.0 1033.0 1119.8 1120.0 1240.0	1033.5 0924.0U 0919.0 0921.0 1033.5 1033.8 1120.3 1120.3	35.0 53.00 13.0 10.5 10.0 1.0 1.0	3.0 1.0 8.0			
	√ 327		45		1524.6	1524.8	.3		47.0		

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

FEBRUARY 1985

				Time of		Flux	Density		
Day	Freq Sta	Турө	Start (UT)	Maximum (UT)	Duration (Min)	Peak (10 -22	Mean W/m ² Hz)	Int	Ramarks
17	237 TRST 237 TRST	46 C 45 C	1524.6 1525.7	1524.8 1525.8	.3 .2		121.0 31.0		
18	260 ONDR	44 NS	0750 . 0E		373.00	11.0			
	9400 HUAN	1 S 2 S/		1314.3	9.1	5.2 3.9	2.6 1.0		
	94uu HUAN 2800 OTTA	20 OR		1423.9 1750.0	6.8 225.0	1.4	0.9		
	9400 HUAN	1 5		1615.4	4.7	5.2	2.4		
	9400 HUAN 245 PALE	22 GR 47 GB	_	1731.6 2046.0	57.4 1.5	6.5 71.0	2.3		QL=6 ST=2 TYP=5
19	- 204 IZMI	43 NS	0700.0		300.0	15.0			
	260 ONDR	44 NS		1133.0	410.0D	0.0	1.0		V-0
	L 127 TORN 245 PALE	44 NS 43 NS		0105.0	250.00 331.00	83.0	1.0		V=0 QL=6 ST=2 TYP=1
	245 LEAR	8 S	0049.6	0049.8	.4 35.2 12.6	41.0			C'_=6 ST=2 TYP=3
	9400 HUAN	20 GR		1342.5	35.2	4.4	1.6		
	9400 HUAN 9400 HUAN	22 GF: 3 S		1435.0 1604.2	2.9	4.4 14.6	2.2 4.9		
20	_ 208 VORO	44 NS			240.00		15.0		
	- 204 IZMI - 260 ONDR	43 NS 44 NS			300.0 430.0D	10.0 71.0			
	200 ONIA 127 TORN	44 NS			360.00	71.0	3.0		V= 1
	2800 OTTA	1 5	1453.5	1455.0	4.0	1.8	0.7		
	2800 OTTA 2800 OTTA	21 GR		1750.0 1734.5	65.0 1.8	1.2 .4	0,6		
	2800 OTTA	20 GR		1935.0	70.0	1.2	0.6		
	2800 OTTA	2 S/	F 2130.0	2130.9	2.0	8.6	2.9		
21	_ 260 ONDR	44 NS		1107.0	306,0D	3.0	• •		V 4
	L 127 TORN 200 H IRA	43 NS		1107.2 0035.0	208.0 660.0D	1400.0	1.0 3.0		V≕1 WR
	127 TORN	45 U		1102.0	5.9 2.5	2400.0	1,00.0		
	127 TORN	4 5 C	1112.2	1113.2	2.5	50,0	30.0		
22	260 ONDR 430 KRAK	44 NS 8 S	0754.0E 0951.5	0951.5	423.00 .2	5.0 4.0			
	— 33 UPIC	46 C	1248.5	1250.4	6.5	4.0			
	L 29 UPIC	46 C	1248.5	1250.5	6.0	20. (
	536 ONDR 430 KRAK	40 F 28 PR	1252.5 E 1254.0	1308.0 1254.5	21.0 2.0	20.6 5.0	2.0		
	_ 2800 OTTA	21 GR	F 1255.0	1310.0	95.00	3, 2			
	→ 408 TRST	46 C 46 C		1305,2 1307,0	23.2		75.0 120.0		
	- 327 TRST - 430 KRAK	46 C	1258.0 1258.5	1301.5	22.0 23.0	32.0	6.0		
	430 KRAK		1258.5	1306.5		39.0			
	- 430 KRAK - 237 TRST	45 C	1258.5 1259.0	1308.5 1313.0	19.0	35.0	35.0		
	2800 STTA	1 5	1259.5	1300.8	1.5	1.0	.5		
	_ 260 ONDR	46 C	1303.0	1306.0	11.0	22.0	11.0		
	∟ 810 KRAK	2 S/		1308.0	3.0	6.0	2.0		
23	127 TORN	43 NS		1201.6	126.0	10.0			V=1
24	260 ONDR 260 ONDR	40 F 40 F	1010.8 1043.	1016.0 1045.0	11.5 3.5	3.0 2.0			
	260 ONDR	40 F	1131.5	1131.6	1.2	1.0			
25	245 LEAR	8 S	0159.3	0159.8	.7	5.0			QL=6 ST=2 TYP=3
	536 ONDP	8 S	1012.8	1013.0	3.0	9.0			
26	260 ONDR	43 NS 46 C	0903.0 0830.5	0936.5 0839.5	431.00 11.0	15.0 44.0	36.0		
	536 ONDR 536 ONDR	46 C		0849.5	18.0	7.0	JO. U		
	_ 536 ONDR	46 C	0901.0		45.0		17.G		
	- 536 ONDR - 536 ONDR		0901.0 0901.0	0920.5 0930.5		12.0 22,0			
	808 ONDR	40 F	0903.0	0903.1	•3				
	_ 430 KRAK	42 SE	R 1010.0	1013.0	46.0	9.0			
	- 430 KRAK - 430 KRAK		1010.0 1010.0	1030.0 1037.2		11.0 35.0			
			1010.0	1052.0		29.0			
	L 430 KRAK		1010.0	1055.0		14.0			





w/m^s

s™/M

February 1985

	-	 -															
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	I Opt	mp Xray	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	I Opt	mp Xray
01 01	1113 1201	1118 1210	1120 1212					B1.0 B1.3	18 18 18	2220 2315 2315	2225 2330 2331	2230 2343 2343					84 2 C4.4 C4.5
03 03 03 03 03 03	0219 0324 0420 1216 1542 2128 0341 1459	0225 0336 0420 1221 1543 2136 0343 1502	0229 0340 0443 1227 1601 2144 0350 1532	S17 N15	w30 w38	4620 4621 4623	SN SF	B1 4 B2.1 C1.7 B2.7 B1.2 B1.0	19	0011	0110 0140 0221 0308 0458 0532 0614 0704	0117 0146 9228 0310 0508 0537 0620			4629 4629 4629 4629		C1.0 C2.6 C2.7 B6.1 B3.9 B8.9 B2.5
06 06 06 06	0053 0144 0720 2349	0057 0148 0728 2355		207	£01	4023	3N	B1.9 B1.1 B1.1 B1.1 B2.5	19 19 19 19	0728 0823 0954 1217 1503	0736 0828 1001 1222 1509 1607	0708 0753 0831 1031 1231 1512 1617	NO2	E83	4629	SN	B6.5 B6.0 C1.1 B4.8 B2.0 C1.9 C3.5
07 07	0544 1914	0611 1917	0625 1949	s0 9	E33	4623	18	81.3 C1.1	19 19 19	1709 1811 1954	1717 1818 2003	1734 1836 2007	NO2 NO2	E83	4629 4629	SF SF	B4.7 C2.0 B3.5
80 09	0655 0301	0702 0305	0707 0309					B1.3	19 19	2013 2051 2313	2013 2057 2319	2027D 2125 2324	NO1 NO1		4629 4629	SN SF	85.1 82.5 88.8
11	0756	0820	0855					B4.4	20	1002	0247 1005	0253 1007	NO3	E74	4629	SF	B1.3
12 17 17	0151 20Co 2148	0203 2010 2258	0221 2015 2312					B1.2 B3.0	20 20 20	1452E 1733 1927	1456	1142 1515 1740 1944 2023	NO1	E70	4629	SN	B1.5 B3.9 B1.4 B3.7 B2.0
18 18 18 18	0743 1140 1357 1449	0806 1143 1420 1457	0828 1145 1430 1509					C2.3 C1.6 B3.7 C1.2	20 21 21	2127 0324	2132 0325 0723	2135 0334 0725	, NO3	E63	4629	SF	C1.2
18 18 18 18	1549 1743 1958 2015 2113	1600 1748 2001 2021 2021	1614 1758 2004 2034 2137					C1.4 B6.8 B2.3 B4.6 B9.1	21 21 22 22 22 22 22	1029 1044	0007 1033 1049 1255	0009 1035 1055 1313					B2.4 B1.0 B1.1 B7.7
										0024	0047	0101					81.8

MASS EJECTIONS FROM THE SUN

FEBRUARY 1985

		Observe	d UT	Locatio	n	Freq or	
Sta	Day	Start Max	End	RA*	R/R _o	Wavelength	Kind of Event
SCMR	Feb 17	2007.3	2015.1			Meter	
SGMR	Feb 17	2024.0	2035.6	•		Meter	H
KHAR	Feb 22	1011 E 1015	U 1031	D076	0.75	H-alpha	S
WEIS	Feb 22	1248.3	1258.0	•		40-160 MHz	II Harm/Herring

QUALIFIERS ON START, MAX AND END TIMES

D = event ended after tabulated time

E = event began before the tabulated time

U = uncertain time

REPORTING STATIONS

KHAR = Kharkov SGMR = Sagamore Hill

WEIS = Weissenau

TYPE OF EVENT

A = eruptive active :egion prominence

CB = coronal cloud bubble

D = coronal depletions E = coronal enhancement

EL = coronal expanding loop II = Type II radio burst

IVm = moving Type IV radio burst

Q = eruptive quiescent prominence

R = corolal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association

* = movement may be caused by lonospheric refraction

ACTIVE PROMINENCES AND FILAMENTS

FEBRUARY 1985

				ved UT						
Туре	Da	y	Start	End	Lat	CMD	imp	Туре	Sta	Remarks
SDF	Jan	31	1245F	1155D	N32	E10	3	C	CATA	
							_	ŭ	0,,,,,	
AFS	Feb		0615	1400		W19		٧	ATHN	
BSL	Feb	-	1045	1105		W90	1-	C	CATA	
BSL	Feb	UZ.	1210	1245D	5/2	W90	1-	С	CATA	
APR	Feb	03	0029	0910	S11	E90	2	٧	MAN I	
ADF	Feb		0029	0910		W28	1	Ý	MANI	
ADF	Feb	03	0029	0910	\$14	W62	2	٧	MAN I	
APR	Feb		0600	1400		E90		٧	ATHN	
AFS	Feb		0845	1400	_	W31		V	ATHN	
BSL ASR	Feb		0920 1011	0930		W90	1	C	CATA	
B\$L	feb Feb		1240	1023 12500		W90 W90	1-	V C	ATHN CATA	
500	. 00	0,5	1240	12300	3,0		'	Ü	OATA	
APR	Feb	05	0930	1400		W90		٧	ATHN	
BSL	Feb		1040	1100	_	W90	1-	C	CATA	
BSL	Feb		1230	1235		W90	1-	C	CATA	
BSL	Feb	05	1235	12350	202	E90	1-	С	CATA	
AFS	Feb	06	0755	1340	S08	E50		٧	ATHN	
ASR	Feb	06	1015	1050		W90		Ÿ	ATHN	
BSL	Feb		0845	1005D		W90	1-	C	CATA	
BSL BSL	Feb Feb	-	1015E	1005D		W90 W90	1	C	CATA CATA	
BSL	Feb		1015E			W90	1-	Č	CATA	
BSL	Feb		1130	1150		W90	1-	č	CATA	
ASR	Feb	07	1210	1400		W90		V	ATHN	
BSL	Feb		1225	1240		W90	1-	С	CATA	
ASR	Feb	07	1335	1400	S10	E90		٧	ATHN	
ADF	Feb	08	0028	0102	S11	E25	2	٧	MAN I	
BSL	Feb		0800	0810		W90	1-	Ċ	CATA	
BSL	Feb	08	0915	09300		E90	1-	С	CATA	
BSL	Feb		0955E			E90	1	Ç	CATA	
BSL	Feb		1010	1025		E90	1	C	CATA	
BSL	Feb	UB	1155	1215D	313	E90	1-	С	CATA	
AFS	Feb	09	0700	1400	N11	W07		٧	ATHN	
ADF	Feb	09	0700	1400	\$11	E76		٧	ATHN	
ADF	Feb	09	0700	1400	N02	W03		٧	ATHN	
APR	Feb	10	1120	1400	520	W90		٧	ATHN	
AFS	Feb		1130	1400		W24		v	ATHN	
ADF	Feb	11	1140	1400	\$15	E45		٧	ATHN	
BSL	Feb	15	1015	1030D	\$09	W90	1-	С	CATA	
BSL	Feb	15	1050E		\$09	W90	1-	C	CATA	
ADF	Feb			1400		E18		V	ATHN	
BSL	Feb	15	1220E	1245D	S09	W90	1	С	CATA	
ADF	Feb	16	0720	1205	S23	W08		٧	ATHN	
BSL	Feb'		0730E	0735D	N12	W90	1-	С	CATA	
BSL	Feb		0730E			W90	1-	Ç	CATA	
BSL	Feb		0855 1005E		\$25		1-	C	CATA	
BSL BSL	Feb Feb		1020E			W90 W90	1 1	C	CATA CATA	
BSL	Feb	-	1105E		N12		i-	č	CATA	
BSL BSL	Feb Feb		1035E 1035E			₩90	1- 1-	C	CATA	
DOL	FBO	.,	10396	11090	312	₩ /	,-	C	UNIA	
APR	Feb		0705	1400	N1 1			V	ATHN	
ADF	Feb		0830	1400	NO3			٧	ATHN	
APR	Feb	21	1040	1400	S22	W90		٧	ATHN	

ACTIVE PROMINENCES AND FILMMENTS

FEBRUARY 1985

	Observ	ed UT						
Day	Start	End	Lat	CMD	Imp	Туре	Sta	Remarks
Feb 24	0935	0955	N26	W90	1-	Ċ	CATA	
Feb 25	1015	10200	S12	W90	1-	С	CATA	
Feb 25	1030F	1040	S09	W90	1-	C	CATA	
Feb 25	1030E	1045	S13	W90	1-	С	CATA	
Feb 26	0940	1400	NO4	W04		٧	ATHN	
Feb 26	1130	1400	S4 5	E05		٧	ATHN	
Feb 26	1155	1310	NO 3	W10		٧	ATHN	
Feb 27	1225	1230	\$81	W90	1	С	CATA	
	Feb 24 Feb 25 Feb 25 Feb 25 Feb 26 Feb 26 Feb 26	Day Start Feb 24 0935 Feb 25 1015 Feb 25 1030F Feb 26 0940 Feb 26 1130 Feb 26 1155	Feb 24 0935 0955 Feb 25 1015 10200 Feb 25 1030F 1040 Feb 25 1030E 1045 Feb 26 0940 1400 Feb 26 1130 1400 Feb 26 1155 1310	Day Start End Lat Feb 24 0935 0955 N26 Feb 25 1015 1020D S12 Feb 25 1030F 1040 S09 Feb 25 1030E 1045 S13 Feb 26 0940 1400 N04 Feb 26 1130 1400 S45 Feb 26 1155 1310 N03	Day Start End Lat CMD Feb 24 0935 0955 N26 W90 Feb 25 1015 10200 S12 W90 Feb 25 1030F 1040 S09 W90 Feb 25 1030E 1045 S13 W90 Feb 26 0940 1400 N04 W04 Feb 26 1130 1400 S45 E05 Feb 26 1155 1310 N03 W10	Day Start End Lat CMD Imp Feb 24 0935 0955 N26 W90 1- Feb 25 1015 1020D S12 W90 1- Feb 25 1030F 1040 S09 W90 1- Feb 25 1030E 1045 S13 W90 1- Feb 26 0940 1400 N04 W04 Feb 26 1130 1400 S45 E05 Feb 26 1155 1310 N03 W10	Day Start End Lat CMD Imp Type Feb 24 0935 0955 N26 W90 1- C Feb 25 1015 1020D S12 W90 1- C Feb 25 1030F 1040 S09 W90 1- C Feb 25 1030E 1045 S13 W90 1- C Feb 26 0940 1400 N04 W04 V Feb 26 1130 1400 S45 E05 V Feb 26 1155 1310 N03 W10 V	Day Start End Lat CMD Imp Type Sta Feb 24 0935 0955 N26 W90 1- C CATA Feb 25 1015 1020D S12 W90 1- C CATA Feb 25 1030F 1040 S09 W90 1- C CATA Feb 25 1030E 1045 S13 W90 1- C CATA Feb 26 0940 1400 N04 W04 V ATHN Feb 26 1130 1400 S45 E05 V ATHN Feb 26 1155 1310 N03 W10 V ATHN

BSL = Bright surge at limb.

ADF = Active dark filament. AFS = Active filament system.

APR = Active prominence region at limb.

ASF = Active surge region.

DSD = Dark surge on disk.

EPL = Eruptive prominence at limb.

SDF = Sudden disapper ance of filament.

ATHN = Athens

CATA = Catania

KODA = Kodalkana!

WEND = Wendelstein

BUCA = Bucharest

CULG = Culgoora

MAN! = Manila

For more detail and information about Remarks, see SGD Supplement.

$\hbox{C O N T E N T S}$

Comprehensive Reports DATA FOR AUG	UST - SEPTEMBER 1983	Number 492 Part II
COLAD FLADES Avenuet 1002		Page
 SOLAR FLARES August 1983 H-alpha Flares (Preliminary Dat Daily Flare Indices (not availa Intervals of no flare patrol ob 	ble at time of publication.)	
SOLAR FLARES September 1983 H-alpha Flares (Preliminary Dat Daily Flare Indices (not availa		41 - 54
Intervals of no flare patrol ob		55
NUMBER OF FLARES August 1966 - Sep	tember 1983	56

erp.			Start	Max	Fnd			NOAA/	n	AP	Dur	1.	mo.		Obs	Time	rea Measure Apparent	ment Corr	
#	Sta (Day	(UT)	(UT)	(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt	Xray	See	Туре	(UT)	(10 ⁻⁶ Disk)	(Sq Deg)	Remarks
0001	VORO	01	0000E	00000	0006	\$12	E35	4267A	08	3,6	6D	SN			С	0000	23	.3	DIJ
0002	LEAR	01	0033	0035	0050	S07	E 18	4263	08	2.4	17	SF		2	С		40		
003	LEAR	01	0116	0117	0136	SL7	E28	4263	08	3.1	20	ŞF		3	С		80		
0004	LEAR	01	0128	0129	0134	S14	W64	4264	C7	27.3	6	SF		3	С		13		
005				02345						2.4			0 1.3		_		92	.6	EIJ
	VORO	01	0231	0234 0234U	0241	S06	E19	4263	08	2.4	10	SN	C 1.3		C	0234	157 81	.9	EIJ
				0235 0239						2.4 2.5			C 1.3	3	V	0239	88 40	.4	E
006				0259*						3.6	92	2N	M 8.5		_		572	6.3	BEFIJKS
			0246	0324	04 10D 03 1 1D					3.6 3.7	84D 16D	SF			P C	0324 0258		8.4 .3	SEFU Elj
				0259 0329						3.7 3.7	14	SF	M 8.5	3	C		30 788		711
				0345				4263	80	3.7	98	2N	M 0.∋	ر	Č	0345	972	12.3	ZU I J
				0404						3.7	1170	2B		,	C	0404	550	7.2	
				0327 0332						3.5 3.5	66D	28	M 8.5 M 8.5	3	C		64 1 768		K UEK
	PEKG	01	0330E	0330	0405	\$10	E33	4263		3.6	35D	28	M 8.5		P	0330		6.2	U
	ABST	01	044 1E	0441	0506D	\$10	E34	4263	80	3.7	25D	1N			Р	0441	262	3.4	FB
007								4267A		4.0	52	SF			^	0054	92	1.2	EIJ
				0323				4267A 4267A			19D 51	SF		3	C	0256	90 93	1.2	EIJ
800	PURP	01	0416	04 19	0428	S09	E 17	4263	08	2.4	12	SB			С	04 19	40	.4	Ε
009	ABST	01	0441E	0441	0506D	S09	E24	4263	80	3.0	25D	SF			Р	0441	131	1.5	BE
0010	PURP	01	0548E	0548	0550	S09	E17	4263	80	2.5		SN				J548	40	.4	E
0011				06582						2.4	5	SN		•	_		86	.9	D
				0700 0658						2.5 2.4	10D 5	SF		2	Р	0730	84	•9	
				0700						2.4	8D	SN			P	0700	87	.9	D
0012				08547						2.4	18	SF		_	_		66	.8	DH
				0854 0854						2.3	7D 24	SF		3	С		52		
				0855						2.4	10D	S		2	Р	0855	56	.6	
	KHAR	01	0855E	0901	092'0	S06	E 14	4263	80	2 ,4	26 D	314			F	0901	90	.9	DH
013	KHAR	01	0910E	0911	0923D	S07	E25	4263	80	3.2	130	SF			Р	0911	140	1,6	Ε
014	KHAR	01	0931E	0939	1001D	S24	E33	4267	80	3.9	30D	SF			P	0939	50	•7	D
015				10242 1026						2.5 2.5	10 13D				Р	1026			D
			1024		1034			4263		2.4	10			2	r	1026			D
016	KANZ	01	1133	1133	1138	S 06	E13	4263	08	2.4	5	SF		2					
017				12293				4263		2.5			C 4.2				58	.6	EH
					1249			4263		2.6			0 4.2			1230	95	1.0	_
				122 9 1232	1239 124 ID					2.4 2.3			C 4.2 C 4.2		C		21	.2	H
018		01	12392	12392	1243	S12	E24	4263	08	3.3	4	SN					42	.5	Ε
- · •	KAND	01	1239	1239	1243	\$11	E24	4263	08	3.3	4	SN		_	C		42	.5	Ē
	KANZ	01	1241	124 1	124 ID	513	E24	4263	08	3.3	4D	SF		2					
019	HOLI				1705					28.2	61						37		FK
	HOLL				1705 1705					28.2 28.2		SF SF		3	_		41 33		K FK

H-ALPHA SOLAR FLARES

										AUG		1983						
Grp			Start	May	End			NOAA/ USAF	a	MP	Dur	lmp		Obs	Time	Area Measuren Apparent	_	
#	Sta	Day	(UT)		(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt Xra	y See	Туре	(UT)	(10 ⁻⁶ Disk)	Corr (Sq Deg)	Remarks
0020	HOLL	01	1741	1745U	1747	N06	E91	4272B	80	8.5	6	SF	3	С		9		
0021	HOLL	01	1748	1748	1756	S10	E21	4263	08	3.3	8	SN	3	С		52		F
0022	PALE	01	1809	1809	1816	N13	W6 1	4269	07	28.2	7	SF	3	С		21		
0023	HOLL	01	1937 1937 1953E	1955 1955 1954U	2022	S16	E25	4267A 4267A 4267A	08 08 08	3.7 3.7 3.7	45	SN C 1.0 SN C 1.0 SN C 1.0	0 3	C C		57 75 39		F F
0024	HOLL	01	1955 1955 1956E	1957 1957 1957U	2010 2012 2008	S05	E07	4263 4263 4263	80	2.4 2.3 2.4	15 17 12D	SF	5 3	C		39 50 28		
		01 01	2039 2126 2153 2305		2049 2148 2209 2314	No f	lare lare	Patrole Patrole Patrole Patrol	ı									
0025	PALE	01	2339E	2343U	2359	S06	E06	4263	80	2.4	2 0D	SN C 2.	4 3	С		67		F
		02	0006		0016	No F	lare	Patro										
0026	PALE	02	0037	0039	0047	N12	W64	4269	07	28.3	10	SF	3	С		34		
0027	LEAR	02	0652	0652	0714	N13	W67	4269	07	28.3	22	SF	3	С		20		
0028	KAND	02 02	0808 0735E 0809 0813E	0814	0827 0830 0820 0830	S06 S05	E01 E02	4263 4263 4263 4263	80	2.4 2.4 2.5 2.4	19 550 12 170	S SN	2	2 C P	0740 0814	96	1.1 1.5 1.0 .7	ET T E E
0029	TACH CATA LEAR KANZ	02 02 02 02 02	0825 0829E 0830 0830	0831 0830 0835 0831U	0843 0838D 0840 0847	\$17 \$18 \$18 \$18 \$18	E17 E18 E17 E17 E17	4267 4267 4267	08 08 08 08 08 08	3.6 3.6 3.7 3.6 3.6 3.6	18 18 9D 10 17 12D 1D	SF SB S SF SF	2 3 2	C C C C	0831 0830 0844		1.0 .7 1.9 1.0	D D
0030	TACH	02	0901E	0909	0915D	S08	E26	4271	80	4.3	14D	SB		С	0909	141	1.7	D
0031	KAND	02	0945	0952	1010	S05	E02	4263	08	2.5	25	SF		С		58	.6	E
0032	TACH	02	1 102E	1102	11120	S05	E02	4268	80	2.6	10D	S 9		С	1102	168	1.8	E
0033	KAND	02	1154	1158	1202	S12	E12	4263	08	3.4	8	SN		С				D
0034	HTPR	02	1619	1622	1630	S11	E26	4271	08	4.6	11	SN		С	1622	60	•7	Ε
0035		02	1702 1702 1702E		1723 1718 1728	S06	W03	4263 4263 4263	80	2.4 2.5 2.4	21 16 26D	SN C 1.9 SF C 1.9 SN C 1.9	9 3	C		76 38 113		F F
0036	PALE	02	1832	1832	184 1	S07	W04	4263	08	2.5	9	SF C 1.	1 3	С		37		F
0037	PALE	02	1854	1900	1908	S 06	W05	4263	08	2.4	14	SN C 2.	7 3	С		90		F
		02	1917 1954 2027		1946 2017 2130	No F	lare	Patrol Patrol Patrol										
0038	CULG	02	2149 2149 2149		2152 2152 2153	\$05	W02	4268 4268 4268	80	2.7 2.7 2.7	3 3 4		3	C	2150	26 30 22	.3	
				2326				4269		28.7	7	SF		С	2326	50		

								NOA /									Area Measuren		~~~~~
Grp	C+-	D=14	Start	Max	End	+	CMD	USAF	Q)	4P	Dur	Ont	mp V==v	Saa	Obs Type	Time	Apparent	Corr	Domanko
		Day	(UT)														(10 ⁻⁶ Disk)		Nemarks
0040				2347 2347						2.4 2.4	60 60	1B	M 1.2 M 1.2		C	2347	330 420	4.2 4.2	Ε
				2347U						2.4			M 1.2			2)41	241	4.2	E
0041		03	06487	0654*	0705	506	W12	4263	ΛR	2.4	17	SN	C 1 8				119	1.3	EFU
0041	MITH	03	0648	0655	0708D	SO 7	W12	4263	08	2.4	20D	SN	C 1.8 C 1.8 C 1.8		С	0655			E
			0649 0650	0654	0701 0700			4263 4263		2.4	12 10	SB	C 1.8	2	C	0654 0655	110 140	1.1 1.5	F
	BUCA	03	0650	0655	0710	S06	W11	4263	08	2.5	20	SF	C 1.8		č	0710		1.2	
			0655 0655	0709	0709			4263 4263		2.4	14	1N	C 1.8						U U
											_								
0042			0704 0704	0706	0706 0706					30.6 30.6		SN							D D
			0704	0706				4262		30.6	-	SN							Ď
0043	LEAF	₹ 03	0748	0756	0808	S06	W11	4263	08	2.5	20	SN		3	С		101		F
0044		0.7	0000	0000	0017	caa	WEA	4262	07	70.7	13	CN					10		•
0044			0800 0800	0800 0800				4262 4262		30.3 30.4	13	-		3	С		18 18		D
	KHAF	₹ 03	0809E		0819D	S22	W55	4262	07	30.2	10D	SF			P	0809			D
0045	KAND	03	0902	0904	0910	S14	W10	4263	08	2.6	8	SN			С		29	.3	D
0046	PURF	03	0907E	0911	0914	SO 7	W09	4263	08	2.7	7D	SN			Р	0911	13	.1	Ε
0047				10091	101F	S07	W11	4263		2.6	10	SN					54	•6	DH
			0952E	1010				4263 4263		2.6 2.5	8D 10	SF		2	V C	0952 1010	40	.4	DH
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H - ALPHA SOLAR FLARES

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N EAR 04 0809 0849* 1035 S08 W27 4263 08 2.5 S S N EAR 04 0809 0849* 1035 S08 W27 4263 08 2.5 S S N EAR 04 0809 0849* 1035 S08 W27 4263 08 2.5 S S S N EAR 04 0809 0849* 1035 S08 W27 4263 08 2.5 S S S N EAR 04 0809 0849* 1035 S08 W27 4263 08 2.5 S S S S S C C 0655 EAR 04 1840 0840 0840 0840 0840 0840 0840 0	DEL DO 2 2007 2008 2212 SO5 MI4 4263 08 2,9 5 SN C 1,0 3 C 29 EARR Q4 Q224 Q231 Q242 S12 W07 4267B 08 3,6 18 SN C 1,1 3 C 33 EARR Q4 Q240 Q242 Q248 S22 W61 4262 Q7 30.5 8 SF S S C 1,0 3 C 37 ACH Q4 Q240 Q242 Q248 S22 W61 4265 08 2,3 43 18 M 3,5 C 3,3 43 EARR Q4 Q325 Q343 Q414 S07 W24 4265 08 2,3 43 18 M 3,5 C 0 343 451 EARR Q4 Q322 Q377 Q408 S07 W24 4265 08 2,3 43 18 M 3,5 C 0 3443 451 EARR Q4 Q332 Q347 Q408 S07 W24 4265 08 2,3 56 SM 3,5 5 C 0 3443 451 EARR Q4 Q332 Q347 Q402 S08 W24 4265 08 2,3 56 SM 3,5 5 C 0 3443 451 EARR Q4 Q332 Q342 Q408 S07 W24 4265 08 2,3 56 SM 3,5 5 C 0 3443 451 EARR Q4 Q332 Q342 Q408 S07 W24 4265 08 2,3 36 SM 3,5 5 C 0 3443 451 EARR Q4 Q342 Q342 Q408 S07 W24 4265 08 2,3 200 10 M 3,5 P Q342 420 EARR Q4 Q342 Q342 Q340 S25 W64 W64 2662 Q7 30,4 11 1N C 1,8 C 0 9528 110 EARR Q4 Q342 Q36 Q354 S25 W64 4262 Q7 30,4 11 1N C 1,8 C 0 9528 110 EARR Q4 Q342 Q36 Q3634 S25 W64 4262 Q7 30,5 7 SN STA Q4 G600 G607 G607 S21 W63 4262 Q7 30,5 7 SN STA Q4 G600 G607 S21 W63 4262 Q7 30,5 7 SN STA Q4 G600 G607 S21 W63 4262 Q7 30,5 7 SN STA Q4 G600 G607 G607 S21 W63 4263 08 2,5 5 SN Q4 G6328 G6355 G647 S06 W25 4263 08 2,5 5 SN Q4 G6328 G6355 G647 S06 W25 4263 08 2,5 5 SN Q4 G6329 G6355 G647 S06 W25 4263 08 2,5 5 SN Q4 G684 Q807 0809 G807 W10 4268 08 3,6 120 SF Q4 G849* 0849* 1035 S07 W17 4263 08 2,4 15 NN Q4 G684 Q807 0849* 1035 S07 W17 4263 08 3,1 115 NN Q4 G684 Q807 0849* 1035 S07 W17 4263 08 3,1 115 NN Q4 G684 Q807 0849* 1035 S07 W17 4263 08 3,1 115 NN Q4 G684 Q807 0849* 1035 S07 W10 4268 08 3,6 120 SF Q4 G849* 0849* 1035 S07 W10 4268 08 3,6 120 SF Q4 G849* 0849* 1035 S07 W17 4263 08 3,1 115 NN Q5 Q4 G849* 0849* 1035 S07 W17 4263 08 3,1 115 NN Q6 Q4 G849* 0849* 1035 S07 W17 4263 08 3,2 880 NN Q7 Q7 Q809* Q80	DLL 03 2207 2208 2212 S05 MIA 4263 08 2.9 5 SNC 1.0 3 C 29 EARR 04 0224 0231 0242 512 M07 4267B 08 3.6 18 SNC 1.0 3 C 33 CARRO 40 0240 0242 0248 S22 W61 4262 07 30.5 8 SF 3 C 37 OLD 04 03257 03576 0408 S07 W24 4265 08 2.5 .7 28 M 3.5 C 0343 451 5.3 EARR 04 0325 0345 0414 S07 W24 4265 08 2.5 .7 28 M 3.5 C 0343 451 5.3 EARR 04 0325 0345 0418 S07 W24 4265 08 2.5 .7 28 M 3.5 5 C 344 451 5.3 EARR 04 0327 03576 0408 S07 W24 4265 08 2.5 .3 6 SM 3.5 5 C 344 451 5.3 EARR 04 0352 0342 0408 S07 W24 4265 08 2.3 36 SM 3.5 5 C 344 451 5.3 EARR 04 0352 0342 0408 S07 W24 4265 08 2.3 36 SM 3.5 5 C 34 M 3.

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0078			19243 1924	1946 1946	2043 2043			4263 4263		3.7 3.7	79 79	-			3	С		108 147		F
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0079	RAMY	04	1954	1955	2006	S24	W73	4262	07	30.3	12	SN	С	2.0	3	С		29		
0080	RAMY	04	2146	2201	22070	S12	W22	4263	08	3.2	21D	SF			3	С		54		
			22475					4263		2.5	٥	CN	c	1.9		-		48	.6	EJ
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	VORO	04	2252	2254U	2258	S0a	W3 1	4263	80	2.6	6	SN	С	1.9		С	2254	45	•6	EJ
0082			03361					4263		2.7				1.7				92	1.4	EF
			0336 0337	0338 0338	0357 0352			4263 4263		2.7 2.7				1.7	3		0338	78		E FF
			0337	0339	0347			4263	08					1.7		č	0339	106	1.4	E
0083	HTPR	05	0832	0833	0839	508	W23	4263	08	3.6	7	SF				С	0833	60	•7	Ε
0084		05	1130	11351	1145	S08	W38	4263	08	2.6	15	SN						48	.6	Ε
	CATA	05	1130	1135	1140	S07	W38	4263	08	2.6	10	S			1	С	1135	56	.8	
	HTPR	05	1130	1136	1150	S08	W38	4263	08	2.6	20	SN				С	1136	40	.5	E
0085	RAMY	05	1203	1207	1220	S11	W24	4263	80	3.7	17	SF			3	С		61		
0086			12432					4263		3.7				1.0				343	4.2	EFIU
			1243 1244	1252 1250	1339 1258D			4263		3.9 3.8					3 3		1252	4 ; 4 509	4.7	FE
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			1149E		1200			4263			110			3	С		148		
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0 106	RAMY	06	1409	1453	14530	S10	W38	4265	80	3.7	44 D	SF	C 1.2	3	С		280		
0107	HOLL	06	1432	1433	1446	NO4	E72	4277	80	12,0	14	SF		3	С		7		
0 108	HOLL	06	1457	1514	1529	S11	W45	4263	80	3.2	32	SF		3	С		38		
0 109	HTPR	06	1511	i512	1516	S09	W38	4263	08	3.8	5	SF			С	1512	10	.1	
0110	HTPR	06	1512	1515	1522	S08	W57	4263	80	2.3	10	SF			С	1515	10	.2	
0111	HTPR	06	1529	1538	1547	S07	W 50	4263	08	2.9	18	SF			С	1538	30	•5	
0112	HTPR	06	1620	1625	1035	S08	W58	4263	08	2.3	15	SF			С	1625	10	.2	
0113	HTPR	06	1621	1630	1643	S21	W40	4267	08	3.6	22	SF			С	1630	10	•1	
0114			16448 1644	16466 1646				4271 4271		3.8 3.7	30 39				С	1649	24 20	.3 .3	
					1704			4271	80	3.8	12			3	č	1043	28	• • •	
		06	1846		1907	No I	Flar	e Patro	I										
0115	HOLL	06	1910E	19100	19210	S 08	W51	4263	80	3.0	1 1D	SN		2	С		20		F
		06	1922		2146	No I	Flare	e Patro	t										
			2211		2216 2253			e Patro e Patro											
		00	2235		2275	140	- 101	e raii o	•										
0116			0351*					4263		2.5			C 4.8		^		62	.8	EHLR
			0351 0358E		0404 0402			4263 4263		2.6 2.5			C 4.8		C P	0358	125 30	•6	н
	PEKG	07	0358	0401	0420	S06	W62	4263	80	2.5	22	SF	C 4.8		P	0401	42	.9	EHLR
					0423					2.6			C 1.5		C		52		Н
		-			0432					3,2			C 1.6	3	C		43		F
0118	ABST	07	0437	0438	0440	N05	E65	4277		12.0	3	1F			С	0438			DGK
0119			06346 0634	06364 0636	0643 0640			4263 4 <i>2</i> 63		2.8 2.5		1N 1N			С	0636	91 87	1.8	DEK DK
			0634	0637	0645		-	4263		3.2					С	0637		2.4	EK
	CATA	07	0640	0640	0645	S 06	W63	4263	80	2.6	5	S		2	С	0640	56	1.3	
0120		07	0650	0655#	0704	S08	E90	4278	08	14.0	14	IN					76		
		07	06°J	0705	0710			4278		14.1	20			2	Ç	0705			
	MIM	1 07	5₀53E	ひもつち	0657	505	F30	4278	UB	14.0	40	1N		4	٧	0655	95		
0121			0750E					4278		14.0		11			٧	0752	95 95		BH
			0750E 0800E	U / 73	0758 ס'י80					14.0 14.1		1N 1N		4	V	0753 0800			ВН
					0925					14.1			C 4.3	4	٧	0919	95		
								4278					C 4.3	4	٧	0919	95		

H-ALPHA SOLAR FLARES

			-								JST 									
Gro			Start	Max	End			NOAA/ USAF		# P	Dur		l mp	!		0bs	Time	krea Measuren Apparent	_	
<i>i</i>	Sta (Эау	(UT)	(UT)	(UT)	Lat	CMD	Region	Мо	Day	(Min)	Op	+ X	ray	See	Туре	(UT)	(10 ⁻⁶ Disk)	(Sq Deg)	Remarks
0123	KHAR							4 <i>2</i> 63 • Patro		2.5	20D	SF				Р	0928	80		DH
 .													_		_	_				
								4278			32	SN	С	5.7	3	С		32		
0 125	RAMY	07	1323	1325	1342	S09	W45	4271	80	4.2	19	SF			3	С		51		
0 126	RAMY	07	1352 1352 1354E	1353	1402	311	W59	4263	80	3.2 3.1 3.2	18 10 23D	SF			3	C C		30 29 31		
0 127			1442							2.5				1.8	_			54		
0128		07	2153	220 IU	2229	S08	W58	4263	08	3.6	36	1N	M	1.8				182		FU
			2153 2203E							3.5 3.6				1.8		C C		16 1 203		UF UF
0 129	PALE	07	2208	2208	2234	S08	E76	4278	08	13.6	26	SF			3	С		14		
0 130	LEAR	80	0103	0107	0138	S19	W 59	4267	08	3.5	35	SF			3	С		68		F
0131		80	0310 0112E 0255E	0320U	03280	S 06	E80	4278	80	13.8 14.0 14.1	28 136D 14D	IN IF	M	3,0		C P	0320 0301	131 55 60		EF F
	YUNN LEAR	80 80	0256E 0309E	0303 0309U	0328 0352	S07 S07	E75 E71	4278 4278	80 80	13.7 13.4	320 430	18 18	M	3.0 3.0	2	P C		154 228		Е F
		•	0310				-	_		13.7				3.0		С	0313			
0132	YUNN	80	0230	0231	0236	S07	W7 1	4263	80	2.8	6					С		46		
0133	ABST	08	0414 0414 0424E	0418	0506	\$10	£75	4279	08	13.8 13.8 13.8	52 52 57D	2N				C	0418 0427	220 262 178		FJ FJ
0 134	ABST	08	0414	0415	0425	S10	W65	4263	08	3.3	11	18				С	0415	131		EV
0135			07182 0718							14.0 13.8	29 29					С		15 15		E E
			0720							14,1	72D				1					
0136	LEAR	08	0720	0720	0724	S12	W61	4263B	80	3.7	4	SF	С	4.2	3	С		18		
0137	KHAR	80	0823E	0825	0845D	S08	W78	4263	80	2.5	220	ŞF	•			٧	0824			D
-								4277								P		46	.7	EG
0139	KHAR	80	1002E	1002	1009D	\$17	W73	4267	08	2.9	70	SF	•			P				
0140			11201 1120	11201 1120	1130 11350					2.4 2.1	10 15D			1.9	2	С	1120	40 5 6		
	RAMY	80	1120	1121	1131	S08	W80	4263 4263		2.5	11	SF	C	1.9	3	č		24		
0141			1307	1311	1330	\$13	W65	4263B	08	3.6	23	SF	С	1.9	3	С		14		
0142	HOLL	08	2256	2300	2312D	S08	E69	4278	08	14.1	16D	SF	•		3	С		11		
0143			2349		2512			4278		13.8				2.8	_	_		110		K
	LEAR	80	2349 2349		2512 2512	S07	E65		08	13.9 13.9	83	11	ıc	2.8		C		86 145		K K
	HOLL	09	0030E	0042	0050D	S02	E63	4278	80	13.7	20D	SM	ı C	2.8	3	С		100		
0144	LEAR	09	0149	0151	0157	509	W71	4263	80	3.7	8	SF	•		3	С		29		
			0345						08	13.9	7	SP	1		3	С		42		F
0146	LEAR	09	0431	0432	0438	510	E62	4279	80	13.8	7	SI	1 C	1.8	3	С		74		

NOAA/ Area Measurement Imp CMP Start Max Fnd USAF Dur 0bs Time Apparent Corr f Sta Day (UT) (UT) (UT) Lat CMD Region Mo Day (Min) Opt Xray See Type (UT) (10-6 Disk) (Sq Deg) Remarks 0147 ABST 09 0702E 0703 0713 S10 E65 4278A 08 14.2 11D 2F 08 3.4 A080 0050 60 0808 S09 W79 4263 8 SF 30 KANZ 09 0300 0804 0808 S08 W78 4263 08 3.5 A SE HTPR 09 0807E 0310D S10 W80 4263 08 30 SE 0807 30 39 SN C 2.1 09 08242 08311 0903 S07 E60 4278 08 13.8 45 Ε KANZ 09 0824 0832 0852 S07 E62 4278 08 14.0 28 SN C 2.1 2 LEAR 09 0826 0831 0914 S07 E59 4278 08 13.8 48 SN C 2.1 C 45 0150 HTPR 09 0847E 0857D S10 W60 4263B 08 4.8 10D SN C 0854 0151 CATA 09 0910E 0910 0910D S12 E62 4279 08 14.0 10D S 0910 56 1.3 0152 HTPR 09 1103E 1167D S10 W82 4263 08 3.3 AD SN C 1103 20 0153 HOLL 09 1609 1609 1616 S09 E54 4279 08 13.7 C 09 1627 16302 1640 S09 W84 4263 13 68 HOLL 09 1627 1630 1641 S08 W83 4263 08 3.5 14 SN C 56 RAMY 09 1627 1632 1638 \$10 W89 4263 08 3.0 11 SF 70 3 C KANZ 09 1642E 1642U 1642D S08 W80 4263 08 11D SF 09 2026 2033 No Flare Patrol 09 2038 2050 No Flare Patrol 0155 PALE 09 2051 2053 2057 S08 E52 4278 08 13.8 6 SF C 1.2 3 C 18 09 2123 2133 No Flare Patrol 0156 LEAR 10 0045 0047 0100 S09 E54 4279 08 14.1 15 3N 24 0157 LEAR 10 0305 0330 S12 W87 4263B 08 3.6 25 SN C 2.5 3 10 08123 08146 0826 S05 E44 4278 08 13.6 14 SF LEAR 10 0812 0814 0822 S06 E44 4278 KANZ 10 0815 0820 0830 S05 E44 4278 08 13.6 10 Sř 3 C 40 08 13.6 15 HTPR 10 0820E 0834D S05 E44 4278 08 13.6 14D SF C 0820 10 .1 0159 KANZ 10 0941 0941 0951 S03 W82 4263 08 4.3 10 SB SN C 1.4 10 11232 1130* 1211 S08 E44 4278 08 13.8 92 .8 RAMY 10 1123 1223 1242 S08 E47 4278 08 14.0 79 C 129 CATA 10 1125 1130 1140 S07 E42 4278 08 13.6 1130 15 2 C 56 C 0161 RAMY 10 1126 1127 1145 S09 E46 4279 08 13.9 19 SF C 1.4 49 0162 RAMY 10 1157 1159 1223 NO1 E45 4280 SF C 3.3 08 13.8 26 42 0163 RAMY 10 1545 1552 1600 S06 E52 4278A 08 14.5 15 C 50 3 0164 RAMY 10 1610 1612 1616 SO1 E42 4280 08 13.8 3 C 44 0165 HOLL 10 1949 1949 1959 S05 E37 4278 08 13.6 0166 HOLL 10 2013 2015 2022 S05 E37 4278 08 13.6 32 S04 E74 4281 08 16.4 10 21566 21578 2216 20 16 HOLL 10 2156 2157 2201 HOLL 10 2202 2205 2231 S04 E74 4281 08 16.4 5 SF S05 E74 4281 08 16.4 29 SF 17 10 2239* 2239 2248 S08 E40 4278 08 13.9 SN C 1.6 HOLL 10 2239 2239 2248 S08 E41 4278 SF 08 14.0 48 HOLL 10 2253 2254U 2255D \$07 E39 4278 20 SN C 1.6 08 13.9 21 0169 CULG 10 2353 2353 2407 S02 E77 4281 08 16.7 2353 50 0170 LEAR 11 0131 0135 0153 S08 E45 4278A 08 14.4 22 SN

H-ALPHA SOLAR FLARES

3rp			Start	Mav	End			NOAA/ USAF	a	4P	Duc		m O		Ohe	Time	irea Measure Apparent	ment Corr	
#	Sta I	Day	(UT)	(ΰτ̂)	(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt	Хгау	See	Туре	(UT)	(10 ⁻⁶ Disk)	(Sq Deg	R-mark
)171	PALE	11	0308	0308	0327	504	E33			13.6	19						29		
172	LEAR	11	0308	0309	0329	509	E36	4279	08	13.8	21	SN	C 1.1	3	С		73		
173	LEAR	11	0444	0444	0458	S10	E32	4279	80	13.6	14	ŝĒ		3	С		23		
0174	ABST	11	0532E	0534	0537D	519	E80	4283	08	17.3	5D	1F			Ρ	0534	87		D
0175	CATA	11	0720	0725	0732 07250 0732	SO 7	E70	4281	08	16.5 16.5 16.5	5D	S	C 1.0 C 1.0 C 1.0	2		0725	35 56 14		
176	CATA	11	1115	1115	1134 1135 1134	S07	E68	4281 4281 4281	08	16.6 16.6 16.7	19 20 16	1		2	C C	1115	112 112		E E
0 177	HTPR	11	1220	1242	1245	S07	E23	4278	08	13.2	25	SF			С	1242	20	•2	£
178	HTPR	11	1237	1239	1248	S03	E33	4280	08	14.0	11	SF			С	1239	30	.4	E
179	HTPR	11	1307	1308	1311	S21	E76	4283	08	17.4	4	SF			С	1308	10		
0 180	RAMY	11	1619	1621	1733D	S06	E66	4281	08	16.6	740	SF	C 1.3	3	С		40		
		11	1644		1734	No I	Flare	e Patro	ı										
181	RAMY	11	1911	1915	1915D	S09	E27	4279	08	13.8	4 D	SB		3	С		67		
0 182	HOLL	11	1911 1911 1911	1915 1915 1915	1929 1923 1935	S10	E 18	427~	80	13.1 13.1 13.1		SB	C 1.8 C 1.8 C 1.8	3	C C		73 68 78		F F
183	RAMY	11	20151 2015 2016	2016 2016 2016	2026 2026 2027D	519	E69		08	17.0 17.1 17.0	11 11 11D	SF		3 2	C C		66 59 74		
0 184	VORO	11	2241	2244U	2250	S11	E 15	4279	08	13.1	9	SN			С	2244	27	.3	DJ
0 185	CULG	11	2307	2317	2333	S03	E63	4281	08	16.7	26	SF			С	2317	60	1.2	
0 186	MITK VORO CULG	12 12 12	00204 0020 0021 0021 0024	0026 0025U	0033 0036	\$10 \$12 \$10	E14 E15 E15	4279 4279 4279 4279 4279	08 08 08	13.2 13.1 13.1 13.1 13.5	24	18 1N 18	C 5.0 C 5.0 C 5.0 C 5.0 C 5.0		0000	0026 0025 0025	254 340 197 280 199	3.0 3.8 2.2 3.0	E1 E1
0 187	CULG	12	0251	02530	0258D	508	E13	4279	08	13.1	7 D	SB			Ρ	0253	40	.4	
0 188	TACH	12	0325	0343	0414	S11	E13	4279	80	13.1	49	1N			С	0343	221	2.4	D
189	LEAR	12	04 15 04 15 04 15		0440 0440 0440	\$11	E12	4279 4279 4279	08	13.1 13.1 13.1	25 25 25	SN SN SN	C 1.6 C 1.8	3	C		54 58 49		HK HK K
0 190	LEAR	12	0446	0446	0454	\$10	E 15	4279	08	13.3	8	SN		3	С		36		F
0 19 1	LEAR	12	0452	0531	0552	502	E20	4280	08	13.7	60	SF		3	С		23		
0 192	LEAR LEAR CULG ATHN	12 12 12 12		0558 0559U	0623	\$10 \$10 \$09 \$10	E14 E14 E19 E14	4279 4279	08 08 08 08	13.4 13.3 13.3 13.7 13.3 13.7	9D 10D	SB SB SB SB	C 6.1 C 6.1 C 6.1 C 6.1 C 6.1	3 3 4	CCPVC	0559 0600 0602	103 137 137 100 127 88	1.0 1.1 1.4 1.1	DFK FK K
			0610E		06 14D					13.5			C 6.1		č	0610	30	.3	Ď
0 193	KAND	12			0615			4279		12.6	200				C		112	1.2	

.9 2.2 .3 .2 .3 .2 .3 .2 .3 .3 .8	Remarks E F E DEFHK F E
Corr (Sq Deg) .9 2.2 .3 .2 .3 .8	E F E DEFHK F F
.9 2.2 .3 .2 .3 1.3 .8	E F E DEFHK F F
2,2 .3 .2 .3 1,3 .8	E E DEFHK E E
2,2 .3 .2 .3 1,3 .8	DEFHK
.3 .2 .3 1.3 .8	E DEFHK E F E
.3 1.3 .8 1.9	E DEFHK E F E
.3 1.3 .8 1.9	DEFHK E F E
1.3 .8 1.9	E F E
1.3 .8 1.9	E F E
.8 1.9 .4	E F E
.8 1.9 .4	F E
.4	E
.4	_
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	E
•3	F
	E
	K FK
1.0	E
1.8	Ε
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	FH E
2.8	•
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	D
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1.0	EFH
	EFN
.2	
	FE
	FH
1 7	
1.7 2.2	E
	1.4 1.0 .2 .4 .6 3.7 1.1 1.4 1.5

								NOAA/								A	rea Measure		
Grp #	Sta	Day	Start (UT)					USAF Region	Mo	4P Day	Dur (Min)	I n Opt	ip Xray	See	Obs Type	Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	Remarks
				13279						13.1							31		 EF
			1322 1333	1327	1328 13500					13.1 13.2	6 170	SF C	. 1 0		C	1327 1335	10 40	•1	E
				1336						13.0	7	SN C	1.9	3	Č	رررا	43	.4	F
0205	RAMY	12	1335	1336	1348	507	E18	4278	80	13.9	13	SN		3	С		77		
0206	нтря	12	134 1E		1439	NIO	E75	4282	08	18.2	58D	SF			С	1341	10		
0207	HTPF	12	1402	14 i 2	1430	S05	E 16	4278	80	13.8	28	SF			С	1412	10	.1	
0208	HTPF	₹ 12	1402	1411	1412	\$10	E07	4279	80	13.1	10	SF			С	1411	10	.1	
0209		12	1555	15564	1600	S10	E04	4279	08	13.0	5	SF					34		
			1555 1555	1556 1600	1559 1602			4279 4270		13.0 13.0		SF SF		3	C C		23 46		
0210				1607															
				18029						13.9				-	U		26		EV.7
0211			1757		1821			4279 4279		13.1 13.1			6.2		С		135 157		FKZ ZFK
	HOLL	. 12	1757	1811	1821	311	E05	4279		13.1				3	C		113		K
0212	HOLL	. 12	1835	1839	184 1	S08	E04	4279	80	13.1	6	SB		3	С		65		
0213	HOLU	. 12	1853	1853	1857	S09	E03	4279	08	13.0	4	SF		3	С		34		F
0214	HOLL	. 12	1851	1853	1859	S09	E20	4278A	08	14.3	8	SF		3	С		44		
0215	HOLL	. 12	1903	1908	1925	\$06	E15	4278	80	13.9	22	SN		3	С		88		F
0216	HOLL	. 12	1914	1914	1915	S09	E03	4279	08	13.0	1	SF		3	С		24		F
0217				20095				4279		13.1			1.9				43		F
				2009 2014				4279 4279	-	13.1 13.2			1.9				61 25		F
0218		12	22141	2216	2222	SOR	FN2	4279	nα	13.1	я	SN					71	.8	DJ
0210				22160				4279		13.1		SF			С	2216	72	.8	DĴ
	CULC	3 12	2215	2216	2221	S08	E02	4279	80	13.1		SB				2216	79	.7	
0219			_	23031 23020	-			4279 4279		13.1 13.1	12	SB (0 1.4 0 1.4 0 1.4		С	2302	79 72	.8 .8	EJ EJ
				2303				4279		13.1	5	SB	1.4		Č	2303	90	.9	LJ
			2302 2302					4279	_	13.1	. 8	\$N (1.4	3	Ç		67 88		
					2328			4279		13.0				,	C				FF 1
0220	VORC	כו 13 (00182	0020	0032	S09	E09	4279 4279	08	13.4 13.3	14	SN (2.1 2.1		С	0020	95 134	1.4 1.4	EFJ EJ
	HOLL	_ 13	0019	0020	0049 ~	S10	E05	4279	08	13.4	30	SB (2.1	2	С		91		F
				0020 0020				4279 4279		13.5 13.4	37 20		2.1		C		100 55		F
0221				0158*				4281		16.5	_				^	0156	63	1.2	EK
		-		0156U 0158				4281 4281		16.6 16.6		SF SF			C	0156 0158	108 50	1.6 .7	E
	LEAF	R 13	0154	0201	0251	S06		4281	08	16.5	57	SN		3	C	0.50	71	•••	K
				0208 0201				4281 4281		16.5 16.6		SF SF		3 3	C		51 36		K
0222		13	0224*	0231*	0410	S10	E01	4279		13.2			0 1.2				347	5.2	EFIK
		₹ 13	0224	0231 0336	0418			4279 4279		13.1 13.1			0 1.2	3	C		104 327		K FK
				0335				4279		13.1			C 1.2		P		384	4.1	F
				0342						13.5		2N			C	0342	574	6.2	EIK
0223				0235						16.9	18	SF		3	С		21		

										AUG		1983						
								NOAA/								rea Measurer	 ment	
Grp			Start	Max	End			USAF	CN-	f P	Dur	lmp	_	0bs	Time	Apparent	Corr	_
#	Sta C	ау	(UT)	(UT)	(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt Xray	See	Туре	(UT)	(10 ⁻⁶ Disk)	(Sq Deg)	Remarks
0224		13	0418*	0424*	0500	S12	E01	4279	08	13.2	42	1N M 1.2	?			295	3.5	DEFK
					0500					13.1	42	IN M 1.2 2N 1N SN M 1.2 1B M 1.2		C	0424	536	5.7	FK
			0420E		0448D					13.2	28D	IN Cu M 1 2		C	0426	398	4.3	E
					0451 0438D					13.1	ז כ 170	1B M 1.2	,	P	0431 0425	310	3.2	E E
	LEAR				0458					13.5	36	1B M 1.2	3	Ċ		145		F
	ABST	13	0446	0450	0510	S13	E07	4279	80	13.7	24	SN		С	0450	87	.9	D
0225		13	0649#	0703*	0721	\$10	waa	4279	ΛΩ	,3.3	**	SN C 4.2	,			61	6	BE
0225					0725					13.2	37		•	С	0714	60	.6 .6	E
			0700E		0720					13.3	20D			_		_		BE
					0708					13.4 13.3		SF		C	0703	20	•2	BE
			0700E C701		0734			4279 4279		13.7	D 33	SNCA	2 3	С		81		DE
	CULG	13	0702	0703	0705				08	13.0	3	SN		С	0703	20	.2	
				0705				4279		12.9		SN		C	0705	30 33	.3	
	LEAR ATHN		0705		0721 0724			4279 4279		13.3	19	SN SN	2	C V	0708	77 111	1.5	
			0705		0725					13.2	20	S	2	Ċ	0715	169	1.8	
	HTPR				0731					13.8	25	SF		C	0708	20	.2	E
			0709 0711		0729 0717			4279 4279		13.1	20 6	SN SN SN SN SN S SF SF SN SF		C	0712 0714	20	2	E
	HIEK	כו	0/11	0/14	0/1/	310	WU-1	7213	00	10.0	Ū	J1		U	0714	20	•2	
0226					0847					13.5	72	SN				161	2.2	EF I
	LEAR			0837	0909D 0824D					13.7 13.6	94D	SN	3	C	0803	88 200	2 2	F E
	MONT			0803 0803	0809					13.8	24D 8	SN		Ċ	0803	200 70	2.2	
	YUNN				0818D					13.4	17D	2F		P	*****	584	6.3	F
	HTPR	_		0804	0915					13.6	73	SB		Ç	0804	150	1.5	ΕI
			0809 0825E		0855 0845D					13.1 13.8	46 20D	Sr S	2	P	0821 0825	80 84	.8 .9	Ε
			0825E		0845D					13.1	20D	Š	2 2 2	P	0825	169	1.8	
	LEAR	13	0833	0845	0848	S 10	W03	4279	80	13.1	15	SF	3	С		21		
0227	HTPR	13	1045	1058	1130	S08	E03	4278	08	13.7	45	1F		С	1058	450	4.5	EU
0228	HTPR	13	1248	1249	1257	S09	E02	4279	80	13.7	9	SF		С	1249	30	.3	
0229	HTPR	13	1249	1252	1256	\$20	E50	4283	08	17.3	7	SF		С	1252	20	.3	
0230		13	1319	1323	1345				08	13.7		SN C 2.4				68	.5	Ε
	RAMY			1323	1402D					13.8		SN C 2.4		C		112		
					1344 1346			4278 4278		13.5 13.8		SN C 2.4		C		23 85		
			1349E		1401D					13.7		SF C 2.4		č	1356	50	.5	E
0232	HTPR	13	1430E		1450D	S11	W08	4279	08	13.0	20D	SF		С	1447	30	.3	Ε
0233	HTPR	13	1517	1518	1523	S08	W07	4279	08	13.1	6	SF		С	1518	20	.2	
0234	HOLL	13	1631	1631	1636	S08	E07	4278A	80	14.2	5	SF	3	С		24		
0235	HTPR	13	1640	1641	1645	\$10	W11	4279	80	12.9	5	SF		С	1641	30	.3	E
0236		13	18007	1812*	1917	S08	WOO	4278	08	13.8	77	1B M 5.5	5			610		EFHKU
	HOLL			1813	1920			4278		13.8	80	28 M 5.5	_	C		768		FHK
	HOLL	_		1904 1812	1920 1816D			4278		13.8 13.6	80 120	SF 1B M 5.5	3	C		170 403		K
	PALE			1812	1912			4278		13.7	65	28 M 5.5		č		1099		UE
0238	HOLL	13	2112		2117			4279		12.9	5	SF	3	С		45		
0239		12	22222	2231	224 î	\$12	W12	4279	Λe	13.0	13	SF				51	.6	EFJ
0239	VORO			22310				4279		13.0	10	SF		С	2231	72	.8	EJ
	CULG			2231	2244			4279		13.1	14	SF		Č	2231	30	.3	F
0240		14	0023#	0025*	0053	S12	W13	4279	OR	13.0	30	SN C 3.3	3			145	1.9	EFJT
4270	CULG	14	0023	0025	0049	S13	W13	4279	80	13.0	26	IN C 3.3		Ç	0025	230	2.5	F
			0026E		00420					13.0	16D		,	C	0027	161	1.8	EJ
			0029E 0033E		0046 0042D					13.0 13.0		IN C 3.2 SN C 3.3		Č	0033	23 1 62	2.6 .7	ET
			0053	_ : _ : _ :	0104					12.9	11		3	Č		42	•	

}rp # :	Sta D	ay	Start (UT)	xsM (TU)	End (UT)	Lat	CMD	NOAA/ USAF Region	CA Mo	#P Day	Dur (Min)	lı Opt	mp Xray	See	Obs Type	Time (TU)	rea Measurer Apparent (10 ⁻⁶ Disk)	ment Corr	
241	LEAR				0215D			4279		13.6	10D						33		
)242	ABST	14	0612	0615	0624	S08	W11	4279	80	13.4	12	SF			С	0615	131	1.3	Ε
)243 /	ABST	14	0624	0626	0639	S09	WO 1	4278A	80	14.2	6	SF			С	0626	131	1.3	E
					0750 0759			4279 4279		13.6 13.5	31 40			1			108	1.2	ETU
	ISTA	14			0730	509		4279 4279	80	13.6 13.6		1N 1N							U U
					0754 0759					13.5 13.8				1	Р	0738	108	1.2	ET
245	YUNN	14	0806	0814	0840	S07	W11	4278	08	13.5	34	SN			С		77	.8	т
			0913 1016		0949 1050			Patro Patro											
)246	R AM Y	14	1329	1331	1335	\$10	W14	4279	08	13.5	6	SN	C 1.2	3	С		26		
247			1428	14293				4281		16.6					С		38		
1	RAMY KANZ	14	1428	1429 1432		S07	E27	4281 4281	08	16.6	28			2			41		
				14300				4281		16.5				2	С		34		EV
	HOLL	14	1551	1552* 1552	1756	S07	W15	4278 4278	08	13.7 13.5	125	SN		3			170 62		FK K
	RAMY HOLL			1553 1553	1609 1623			4278 4278		13.8 13.8	32			2	C		34 88		
	HOLL Ramy			1643 1553	1756 1605			4278 4278		13.5 14.1			C 1.3	3 3	C		466 58		FK
-	KANZ	14	1555	15550	1503D	S08	W13	4278	08	13.7	80	1N		2					.
	RAMY RAMY			1625 1642	1759 1759			4278 4278		13.6 13.6			C 1.3	3	C		44 44 1		K FK
0249				16124 1612				4 283 4 283		17.1 17.2				3	С		26 18		
			1615					4283		17.1				3	č		33		
	RAMY			1642* 1642	1756 1800			4279 4279		13.9 14.0		2B		3	С		440 376		FKZ K
i	RAMY	14	1625	1655	1800	S09	W09	4279	08	14.0	95	2 B		3	С		570		K
	HOLL HOLL			1642 1656	1751 1751			4279 4279		13.9 13.9		1B 28		3 3	C C		266 548		ZFK K
0251			1814	1815	1818			4282		17.2 17.2		SF SF		3	С		32 32		
			1814 1814	1815 1815	1818 1818			4282 4282		17.2		SF		3	č		33		
0252	шогт		1908	1914*	1954 1954			4279 4279		13.5 13.5		SF SF		3	С		38 37		K K
	HOLL			1914 1933	1954			4279		13.5				3	č		39		ĸ
		14	2129		2147	No	Flar	e Patro	ı									•	
0253	LEAR	15	0009	0012	0027	S09	W22	4279	08	13.3	18	SF		3	С		96		
0254	LEAR	15	0025	0027	0040	N20	E55	4286	80	19.2	15	SF		3	С		28		
0255	LEAR			0044* 0045				4279 4279		13.5 13.7			C 2.0	3	С		66 82	•6	EFK K
	LEAR	15	0036	0128	0153	S08	W17	4279	08	13.7	77	SN		3	С		63		K
			0042 0052E	0044 0052	0111 0107			4279 4279		13.4 13.5			C 2.0 C 2.0		C	0056	89 59	•7	F E
	LEAR	15	0118	0127 0136U	0153	S10	W23	4279 4279	80	13.3	35	SN	C 2.1	3	Ċ	0136	55 51	.6	F
	. 411		y	500				4282		17.4	_	SF		3	C		56	••	_

			Start					NOAA/ US/.r		4P						rea Measuren Apparent		
					(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt Xray	See	Type	(UT)	(10 ⁻⁶ Disk)	Corr (Sq Deg)	Remarks
0257	LEAR	15	0132	0122	0136	N17	E55	4286	08	19.2	4	SN	3	С		28		
0258	LEAR	15	0145	0206	0 <i>2</i> 50	S 19	E26	4283	08	17.0	65	SN	3	С		91		U
				02311						13.6	33	SN	_			78		F
				0231 0232				4279 4279		13.4 13.8	42 22		3 3	C		103 54		F
				0416						13.3	16D		_	ρ	0416		1.5	E
0261		15	05381	05392	0603	S16	W25	4279	08	13.3	25	SN				30	.3	F
			0538		0557D				08	13.3	190		_	P	0541	30	.3	
	LEAR	כו	0559	0539	0603	509	W25	42/9	08	13.3	24	SN	3	C		29		F
0262	LEAR	15	0720	0720	0731	S08	W19	4278	80	13.9	11	SF	3	С		22		
0263				0742*						13.4		SN C 3.0		^		150	2.2	PCDEFK
			074 1 074 1	0803	0829 0829			4279 4279		13.4 13.4	48 48	SN SB C 3.0		C		33 150		K FEK
			0744		0825					13.4	41	IN C 3.0)	•		1,70		C
			0744		0825					13.3	41	SN						В
			0744					4279		13.4		1N						C
			0744	0756	0820			4279 4279		13.3 13.2	35	SN SN		Ρ		62	•7	В
			0749		0837			4279		13.4	48		2			02	• •	
			0755		0825	S 10	W24	4279		13.5	30			Р	0802	430	5.0	Ε
	ISTA							4279		13.7	8							BO
			0800		0055			4279		13.7		1N		_			_	DB
				0834 0832						13.5 13.8	24 20		2	С		77	•9	E
0264				0921*						13.6	60	SN	2 2 2 2			160	2.1	EFHY
			0914		0930D				80	13.5	16D	SN	2	C		75		F
			0914	0924	0930D					14.0 13.6	16D 67	SN SN	2	С		168		F
			0930E	0321	09530					13.5	23D	SN	-	Р	0930	100	1.1	E
			0937E	0938	1014D					13.4	37D	1B		P	0939	300	3.3	EHV
			0939		1014			4279		13.7	35	SB	2					
	ATHN	15	0940	0943	1005	S08	W26	4279	80	13.4	25	SB	2	٧	0943	159	1.9	
0265			1056		1109			4279		13.6	13			^		60		
		-		10540				4279	-	13.4	16D		3 3	C		73		
			1056	1054U 1056	1108			4279 4279		13.9 13.6	15D 12		1	·		48		
0266			14 13 1		1434			4278		13.9	21		·			30		
0200			1413		1439			4278		13.9	26		3	С		30		
				1414						13.9	16		2	_				
		15	1714		1743	No I	Flar	e Patro	ı									
0267	PALE	15	1818	1829	1841	S09	W24	4279	80	14.0	23	SF C 2.	3	С		132		F
			2015		2022			e Patro										
			2033		2041	-		e Patro										
			2126 2246		2244 2248			e Patro e Patro										
0268				00204				4279		13.3		1B C 2.		_		138	2.5	EFJ
			0017 0019	0024 0020	0110 0057			4279 4279		13.4 13.3		SN C 2.4		C	0021	80 197	2.5	F Ej
ሰንፋቦ			0414		0419			4279		13.2	5		_	C	UUZ 1	23		
													3			-		
				0616				4279		13.5	17		3	C	0475	21	_	
0271	HTPR	16	0534	0637	0541	510	W36	4279	08	13.6	7	SF		C	0637	50	•7	Н

~			C++	. Wass	5-4			NOAA/ USAF	CMP		C	lmo			۸-	Area Measurement Time Apparent Corr			
3rp #	Sta	Dav	STACT	Max (IIT)	End (UT)	Lat	CMO	Region	Mo	¶P Dav	(Mir)	Ont	mp Xrav	See	Type	(UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sa Dea)	Remark
, 													~~ ay						
272				0705*						13.1					_		53	•9	BOLT
		_		0707						13.0					C C	0707	54	.8	
			0701	0708				4279		13.1 13.1					C	0708	80	1.1	В
				0713						13.2				z	C		31		D
				0716	0740			4279		13.1		SN		,	U		٠, ر		В
				0705	0723					13.3	20				С				Ď
				0712						13.2				2	_				-
	YUNN	1 16	0719	0719U	0740	S09	W42	4279		13.1		SN			P	0719	46	.7	
	KHAR	₹ 16	0720E		07280	S09	W43	4279	80	13.1	8D	SN			٧	0720			LT
273		16	0657	0659*	0715	SO 1	W36	4280	ΛR	13.6	18	SN					140	1.4	EFU
				0659						13.7					С	0659	100	1.2	E
				0704				4280		13.5					C	0704	161	2.1	Ē
			0701		0710			4280		13.6	9	1B						_	U
				0703	0720					13.5				ر	С		225		F
				0710		-	-	4280		13.6		18		_					U
				0704						13.5		SB		2	^				_
	KANL	10	0/9/	0709	0/13	50 I	₩37	4280	08	13.5	4	SF			С		73	1.0	E
274		16	0752*	0759*	0841	S09	W40	4279	08	13.3	49	SF	C 2.9				70	.8	DELT
	HTPF	16	0752	0759	0809	509	W37	4279	08	13.5	17	SF			C	0759	30	.4	
	LEAR	₹ 16	0757	2823	0928	S10	W42	4279		13.2		SN	C 2.9	3	С		118		
				0802	0817					13.5		SN		2	_			_	
				0805	0811D					13.5	60	SF	C 2.9 C 2.9		P	0805		.3	D
				0822						13.3	14	SF	0 2.9		Č	0822		.9	E
			0819E	0823	084 1D 0837					13.6 13.3	120	9F	C 2.9		C	0819	150	2.0	D
				0820	0911					13.2			C 2.9		U				U
				0822	0836					13.2					С	0822	110		
				0821	0824D					13.7	3D	SF	C 2.9 C 2.9		P	0821	10	.1	D
				0821	0842D					13.1	21D	SN	C 2.9		P	0821	100	1.5	LT
	KHAS	16	09086	0908	0926D	509	W43	4279	80	13.1	18D	SF			P	0908	30	.5	
276	KHAF	16	06316	0834	0838D	S 07	W36	4278	08	13.6	70	SF			P	0834	10	.1	D
277	KHAF	₹ 16	10356	1059	11020	\$08	W36	4278	08	13.7	27 D	SF			Р	1039	40	.6	LT
278	HTPF	16	1049	1053	1056	S09	W26	4278A	08	14.5	7	SN			С	1053	60	•7	E
279	KHAF	16	10596	1059	1105D	\$18	E08	4283	80	17.1	6D	SF			Р	1059	40	.5	
280	KHAF	₹ 16	11256	1125	1134D	S07	W38	4278	80	13.6	90	SF			P	1129	10	•2	D
281	RAMY	16	1342E	134 <i>2</i> U	1342	S08	W61		08	12.0	90	SN		2	С		28		
0282		16	13441	13453	1405	S10	W39	4279	08	13.6	21	SB	C 3.1				96	2.0	F
	KANZ	16	1344	1348	1409	S09	W37	4279	08	13,8	25		C 3.1						
	RAM	16	1345	1345	1400			4279		13.6			C 3.1		С		44		F
					1405					13.6			C 3.1			1348	143	2.0	_
	HOLI	. 16	13478	1347U	13500	\$10	W40	4279	80	13.6	30	SB	C 3.1	4	С		102		F
		16	1511		1515	No	Flar	e Patro	1										
283		16	1526*	1538*	1612D	S08	W45	4279	08	13.3	460	SB	C 1.0				95		EFK
	HOLI	_ 16	1526	1538	1600D				08	13.3	34D	SN		4	C		38		K
			1526	1557	1600D					13.3			C 1.0		Ç		120		FEK
			1526	1608	16120					13.2				4	Ç		120		
	RAM	r 16	1546	1557	1601D	509	W4 >	42/9	Ų8	13.3	טכו	28	C 1.0	3	С		103		
284	HOLI	. 16	15508	16000	1645D	\$08	W37	4278	80	13.9	550	SB	C 6.0	3	С		65		
285	HOLI	. 16	1607	1607	1608D	S08	W33	4278A	80	14.2	10	SB		3	C		168	•	
		16	1739		1746	No	Flar	• Patro	1										
) 7 86	HOLI	16	1802	1802	1811	S07	WA 1	4278	ŊΑ	13.7	•	SN	C 1.3	3	С		39		F
								-2/U											

Эгр			Start	Mec	End			NOAA/ USAF	~	MP.	Dur	lmo			Ohe	Time	rea Measuren Apparent	ment Corr	
# #	Sta	Day	(UT)	(UT)	(UT)	Lat	CMD	Region	Mο	Day	(Min)	Opt Xra	sy S	See	Type	(UT)	(10 ⁻⁶ Disk)	(Sq Deg)	Remark
			1829 2019		1949 2023	No I	lare	Patro Patro	l										
287	HOLL	. '5	2046E	20480	2100	S0 1	W44	4280	80	13.6	14D	SF		3	С		32		F
288	HOLL	:6	2141E	2143U	2152	S07	W42	4278	80	13.7	1 1D	SF		3	С		24		
289	HOLL	. 16	2142E	2 14 2U	2246	N18	E29	→2 86	ი8	19.1	64D	1B C 2	.7	3	С		255		EU
		16	2155		2220	No I	Flare	Patro	ı										
290	HOLL	16	2220	2222	2238	S08	W45	4279	80	13.5	18	SN C 2	.9	3	С		69		F
		16	23 17		2326	No !	Flare	Patro	ŀ										
291	HOLL	. 17	0043	0051	0105	S08	W50	4279	80	13,3	22	SN C 1.	.8	3	С		40		
) 29 2	CULG	17	0123	0132	0215	502	W57	4280	80	12.8	52	SF			С	0132	70	1.3	FHL
0293				0232 0232						13.4 13.5	62 62	2B M 1. 1B M 1.		3	С		398 242	9,3	EF FE
	YUNN	17	0236E	02360	0254D					13.3		2B M 1.			P	0236	554	9.3	
294			0501 0501	0504 0504	0524 0524			4280 4280		13.5 13.3	23 23	iN IN			С	C504	171 218	3.6 3.6	F F
	LEAR	17	0501	0504	0525	S02	W49	4280	80	13.5	24	SN		3	С		124		
295			0646 0646	0658	0658 0658			4279 4279		13.4 13.4	12 12								FU FU
			0646					4279		13.4		1B							UF _
0296	LEAR	17	0647		0731	S10	W56	4279	08	13.1	59 44	SN			С		34 34		LT
			0708 0725E	0722	0800 0740D					13.1 13.2	52 150			2	٧	0/32			LT
0297			0722 0722	0737	0737 0737					13.3	15 15								BD B0
				0737	0/5/			4278		13.3 13.3	15	SB							08
0298			0809* 0809	0816* 0816	0924 0917D					13.3 13.1		SN C 1		3	С		62 67	1.0	EFKLTW K
	LEAR	17	0809 0811E	0848	0917D 0928D	S10	W56	4279	08	13.1 13.0	68D	SB C 1 SN C 1	.2	3		0858	83	.7	FK LTW
	PEKG	17	0845	0850	0922	S08	W56	4279	08	13.2	37	SF C 1	.2		C	0850	34	.6	Ē
			0850E 0851E		0925D 0925					13.2 13.6		S C 1 IN C 3			P V	0900 0851	56 127	1.1 2.2	
				0908						13.8		SF C 3		•	P	0908	40	7.7	L
0299			10175 1012E	1017 * 1018	1 106 1044D					13.4 13.1	49 320				P	1018	58 40	1.0 .8	ELT LT
			1017		1048					13.1	31			2	Р	1047	40	7	
			10 18 E 10 20 E		1117D 1115					13.7 13.5	590 550				Ć	1047 1030	40 140	.7 2.3	Ε
	KANZ	17	1022 1117E	1029	1114 11200	S10	W49	4279	08	13.7 13.0	52			2	ρ	1117	10	•2	
0300				1035						13.8	30	s		2	P	1035	84	1.4	
				1157					08	13.5	6D	SF			Р	1157	30	.6	
0303				13381						13.1		SN C 1				4	48	1.0	
	ATH	1 17	1336 1338	1339	1342 13400			4279 4279		13.4		SN C 1		3	C	1339 1340	95 20	1.6 .4	
	HOLL	17	1338	1338	1342	S07	W60	4279		13.1				3	č	U+C1	28	•=	
0304	HTPR	17	1411	1413	1416	508	W62	4279	08	12.9	5	SF			C	1413	10	•2	

C			Can	Maria	Ce-4			NOAA/	~	A D	Du-				Obc	T1	rea Measurer Apparent	nent Corr	
				(UT)		Lat	CMD	USAF Region	Мо	(P Day	(Min)	Opt	Xray	See	Туре	(UT)	(10 ⁻⁶ Disk)	Corr (Sq Deg)	Remarks
				1626*		S08	W54		08	13.6	15	SF					34		F
	HOLL			1626 1636	1631 1649			4279 4279		13.6 13.6	6 17	SF SF		3	C		23 45		F F
0306	HOLL	17	1742	1747	1832	508	W55	4279	08	13.6	50	SF	C 2.0	3	С		61		F
				1905				4279					M 1.4				154		F
			1904 1915E					4279 4279					M 1.4 M 1.4				169 140		F F
		17 17	2129 2221 2254 2321		2219 2249 2319 2322	No I No I	Flare	Patrole Patrole Patrole Patrole	 										
0308	HOLL			2334U						13.6	7 D	SF		2	С		19		
								4280		13.9				3	С		52		
											16			3	С		17		
				0121						14.0	-			_	•				
				0301						17.1				3	C		27		
0312	ABST	18	0431	0434	0439	S07	W77	4278	80	12.4					С	0434	87		DJ
0313	LEAR	18	0457	0501	0511	S09	W67	4279	80	13.2	14	SN	C 1.2	3	С		43		Ε
0314	YIINN			0823* 0823						13.2 13.3		SN SB			С		25 31	.7	EFKL
	KHAR	18	0622E		0829D	S12	W72	4279	08	12.9	7 D	SF			P	0824		_	L
				0824 0827						13.1 13.2	_	SN		3	0	0824	30 18	.7	K
				0838						13.1		SF		3	č		20		FE
0315	KHAR	18	0858E		0906D	N02	W90		08	11.6	8D	SF			٧	0858			
0316	KHAR	18	0859E		0909D	S10	W71	4279	80	13.0	10D	SF			P	0903			L
0317	HTPR	18	0945	C950	1001	S06	W72	4278	80	13.0	16	St.			С	0950	20		
0318				10154						12.9					_		63		
			10 14 10 15		1030 1030			4278 4278		13.0 12.8				2	C	10 19 10 15	70 56		
0319	KHAR	18	1015E	1020	10300	S09	W79	4279	08	12.5	150	IN			Р	1022			н
0320		18	1038	1039*	1122	N03	w^8	4278D	08	16.3	44	SN					120	1.3	EK
	HTPR	18	1038	1039	1122	N08	W28	4278D	08		44	SN			С	1039	120	1.3	EK
0321		18	1040*	1055	1115	N08	W18	4282	80	17.1	35	SN					77	.9	ε
	KHAR	18	1040		1045D	N07	W18	4282	80	17.1	5 D	SF		_	P	1042	50	.6	E
			1050 1055E	1055	. 15			4 28 2 4 28 2		17.0 17.1				2	P	1035 1109	1 i 2 70	1.2 .8	£
0322	HTPR	18	1227	1231	1245	N08	W 30	4278D	08	16.3	18	SF			С	1231	30	.3	E
0323	HTPR	18	1328	1333	1341	\$06	W79	4278	08	12.6	13	SF			С	1333	20		
0324	HTPR	18	1420	1421	14 26	N00	W70	4280	08	13.4	6	1F			C	1421	120	2,2	E
0325				1508U						17.1			C 2.0		_		136	2.5	EF
			1506 1508	1508U	1514D 1601			4282 4282		17.1 17.1			C 2.0		C	1513	250 21	2,5	E F
		18	1515		1518	No		e Patro											
			1522					• Patro						_					_
0326	HOLL	18	1731	1739	1755	N08	W21	4282	80	17.1	24	\$F		3	C		36 		F

AUGUST 1983

2056 No Flare Patrol 18 2054 18 22539 2254* 2320 NO9 W24 4282 08 17.1 0328 27 SF 66 1.3 DJK VORO 18 2251E 230/ 2353 N10 W25 4282 HOLL 18 2253 2234 2258 N09 W24 4282 08 17.1 6 SN C 2304 134 DJK 08 17.1 SF С 30 HOLL 18 2302 2302 2309 NO9 W24 4282 08 17-1 34 19 0210* 02239 0258 S07 W67 4278 08 14.1 48 1N 154 **EFHIJU** LEAR 19 0210 0223 0307 508 W69 4278 08 13.9 57 1F 144 UF PALE 19 0221E 0228U 0236 508 W63 4278 08 14.4 35D SN C 86 VORO 19 0223 0232 0250 \$06 W70 4278 08 13.8 27 IN С 0232 296 EH!J YUNN 19 0226E 0230U 0234D S07 W65 4278 8D 1B 08 14.2 0230 92 19 03061 03091 0325 S08 W86 4279 08 12.7 AFU YUNN 19 0306 0310 0324 508 W80 4279 LEAR 19 0307 0309 0326 508 W89 4279 PEKG 19 0310E 0310 0323 508 W90 4279 08 13.1 C 3.8 18 19 1N C 3.2 3 08 12.4 UF C 150 13D SB C 3.8 08 12.4 0310 101 A PALE 19 0317E 0318U 0327 S09 W83 4279 08 12.9 10D SN C 3.8 60 0331 PEKG 19 0405 0415 0438 S07 W90 4278 08 12.4 33 SF 04 15 42 0332 CATA 19 0635E 0635 0650 S06 W90 4278 08 12.5 15D S 0635 28 2 0935D S08 W88 4279 94D SN 19 0801E 08 12.7 Н KHAR 19 0801E 0840D S08 W88 4279 08 12.7 39D SN ORO4 KHAR 19 0849E 0935D S08 W88 4279 08 12.8 46D SF 7890 0334 CATA 19 0920E 0925 0935D S06 W90 4278 08 12.6 15D 1 2 0925 56 0335 KHAR 19 1045E 1106D S08 W89 4279 08 12.8 21D SN 1055 19 1810* 1826! 1835 N16 E54 4288 25 SF C 2.2 08 23.8 RAMY 19 1810 1826 1837 N16 E53 4288 HOLL 19 1823 1827 1836 N16 E54 4288 08 23.8 27 SN C 2.2 3 08 23.9 13 SF C 2.2 1831 N16 E55 4288 PALE 19 1825 1826 08 23.9 20 0100 0103 No Flare Patrol 20 0106 0111 No Flare Patrol 20 0204 0209 No Flare Patrol 0337 KANZ 20 0853 0857 0924 \$15 W76 4279 08 14.6 20 12454 12481 1311 N16 E48 4288 HTPR 20 1245 1248 1310 N15 E44 4288 08 24.2 26 SN 25 1.1 08 23.9 1248 SN 80 ATHN 20 1247E 1249 1309 N19 E54 4288 08 24.6 220 SN 1249 48 KANZ 20 1249 1249 1313 N15 E46 4288 08 24.0 SN 24 0339 RAMY 20 1731 1731 1743 N15 E49 4288 08 24.4 12 SF 20 20 17461 17474 1902 N08 W49 4282 RAMY 20 1746 1748 2105 N08 W49 4282 PALE 20 1747 1747 1759 N07 W49 4282 08 17.1 76 SF 08 17.1 199 SF 51 08 17.1 12 SF 1751 1803 NO8 W50 4282 HOLL 20 1747 08 17-0 20 1802 PALE 20 1802 SN C 3.0 1804* 1836 N14 E50 4288 08 24.5 34 100 0341 FK 1831 N15 E50 4288 08 24.5 SN C 3.0 3 29 1804 87 08 24.5 HOLL 20 1802 1806 1839 N14 E50 4288 37 SB C 3.0 37 SN 3 C 115 FK HOLL 20 1802 1816 1839 N14 E50 4288 08 24.5 20 2035 2059 No Flare Patrol 20 2156 2201 No Flare Patrol 0342 VORO 20 2354 2358U 2411 N13 E46 4288 08 24.5 17 1B 2358 179 EH:J 0343 CATA 21 0910 0910 0915 NO8 W63 4282 08 16.6 5 S .6

Ger			Stant	Mar	Fnd			NOAA/ USAF	CH.	MP.	Der	1.	m.D.		Obe	T1	krea Measure Λρρατέπτ	0	
#	Sta	Day	(UT)	(UT)	(UT)	La†	CMD	Region	Мо	Day	(MIn)	Op†	Xray	See	Type	(UT)	(10 ⁻⁶ Disk)	(Sq Deg)	Remarks
)344	KHAR	21	0926E		0930D	N09	W57	4282	08	17.1	4 D	SF			Р	0926	40	.8	E
345	CATA KANZ	21 21 21	1100 1100 1100	1100 1100 1100	1106 1105 1108	N09 N10 N08	W25 W25 W25		03 08 08	19.6 19.6 19.6	6 5 8	SF S SF		2 2	С	1100	28 28	.3 .3	
		21 21 21						Patrol Patrol Patrol Patrol											
	HOLL	21	1753	1801	1913	114	E34	4288 4288 4288	80	24.3	83	28	M 2.3 M 2.3 M 2.3	3			652 795 510		EFU FE UF
347	HOLL	21	2055	2059	_122	N13	E32	4288	80	24.3	27	SN		3	С		74		F
		21	2352		2356	No F	Flare	Patrol											
	VORO	22	0114E	01140	0116	N14	E28	4288 4288 4288	80	24.2 24.2 24.2	2D	SN SN SF			C P	0114 0116	102 125 80	1.2 1.5 .9	EFJ EJ F
349	KHAR	22	0811E		0818D	NO 1	⁻) 1		08	22.4	7D	SF			٧	0811			н
350	KHAR	22	0814E		0847D	504	W30	4286A	08	20.1	33D	SF			٧	0830			L
	CATA	22 22	1055E 1055	11025 1105 1102	1122D 11100	N20 N22	W55 W54	4284 4284	80 80	18.2 18.3 18.2	27D 27D 15D 15D	SF S		1 2	P C	1055 1105	96 80 112	1.7 1.4 2.0	É
		22	1238	12452 1247 1245	1309	N15	E23	4288	69	24.5 24.3 24.8	31	SB	C 2.4 C 2.4 C 2.4	3	C V	1245	165	1.7 1.7	E E
353	HOLL	22	1434	1436	1450	N13	E23	4288	80	24.3	16	SF		3	С		33		
		22	14443 1444 1447	1501	1524 1525 1523	NO8	W75		80	17.1 17.0 17.1	41	SF	C 1.9 C 1.9 C 1.9	3			25 28 22		
		22	1527		1531	No f	Flare	Patrol											
355	RAMY	22	1822	1828	1835	N18	W60	4284	80	18.2	13	SF		3	С		23		
		22 22 22 22 22 22 23 23 23 23	2129 2207 2216 2226 2234 2253 2320 2343 2348 0006 0022 0027 0102 0136		2203 2214 2223 2232 2243 2315 2323 2346 2353 0012 0025 0030 0114 0140		lare lare lare lare lare lare lare	Patrol			•								
356	CULG	23	0444	0445	0451	N22	E22		08	24.9	7	SF			С	0445	30	.3	
357	KHAR	23	1114E		1120D	S13	E47	4289	80	27.0	6 D	SF			P	1114	70	1.1	
358		23	1135 1135E 1135	1140 1140	1145 11420 1145	S06	W44		80	20.2 20.2 20.2	10 7D 10	SF		1	P C	1135 1140	40 50 29	.6 .7 .4	

^			C.A		F. 4			NOAA/		40					•		rea Measure	-	-
Grp #	Sta	Day	Start (UT)		End (UT)	Lat	CMD	USAF Region		4P Day	Dur (Min)		mp Xray			Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	Remarks
 0359		 23	23211	23243						18.3			M 1.9				171		DEFHJ
	VORO	23	2321	2327	2347	N21	W 76	4284	08	18.1	26	1B	M 1.9			2327	143		DHJ
			2322	2324 23 <i>2</i> 7				4284 4284		18.5			M 1.9		C C	2227	170		FE
	COL			2321						18.3	2)	EN	M 1.9		C	2327	200		F
		24	0301		0306	No :	Flare	Patro	ļ.										
0360	HTPR	24	0823	0826	0850	N14	WO 1	4288	80	24.3	27	SF			С	0826	20	•2	Ε
0361	KHAR	24	0847E		090 60	S17	E90	4296	80	31.2	19 D	\$F			Р	0847			
0362	HTPR	24	0937	0938	0942	N23	W68	4284	80	19.2	5	SF			С	0938	20	.4	
0363	KHAR	24	1052E		1108D	\$13	E31	4289	08	26.8	16D	SF			P	1052			Ε
		24	1201		1235	No.	Flare	Patro	1										
		24	1300		14 17	No 1	Flare	Patro	l										
			0402 0435		0413			Patro Patro											
			-																
0364	HTPR		12572 1257		1306 1311			4296 4296		30.4 30.2	9 14	SB			С	1259	20 20	.4 .4	
			-	1259				4296		30.4		SB		3	č	1275	19	••	
0365		25	1259	12592	1310	S12	F72	4295	na	31.0	11	SR					24	•7	
0,00	HOLL	25	1259	1259	1313	S12	£73	4295		31.0	14			1	С		17	• ′	
	ATHN	25	1300E	1301	1308	S11	E71	4295	80	30.9	8D	SB		2	٧	1301	32	.7	
			2016					Fatro											
			2045 2201		2105 2213			Patro Patro											
			2245					Patro											
		26	0258		0302	No I	Flare	Patro	ł										
0366	HTPR	26	0809	0809	0815	522	E46	4296	80	29.9	6	SF			С	0809	20	.3	
0367	HOLL	26	2131	2133	2148	S11	E38	4293	08	29.7	17	SF		3	С		3?		
0368	CULG	26	2234E	2234U	2258	S11	E4 0	4296A	08	29.9	24D	SN			P	2234	150	1.9	F
0369	CULG	27	0040E	00400	0047	S11	W08	4289	80	26.4	7 0	SF			Ρ	0040	40	.4	
			0058					Patro											
		27	0111		0114	No I	Flare	Patro	•										
0370				0125				4289		26.4		ŞF			v		26	.3	EF
				0125 0125				4289 4289		26.4 26.4		SF		1	C C		25 30	.3	FE
								4289		26.4		SF		3	Ċ		23		
0371								4296A		29.8	64	18	C 2.2				257	3.4	FG
								4296A 4296A		29.7 29.6		I IN	C 2.2	2	C	0805	337 243	4.3	F
				0746						29.9	37 D	1B	C 2.2	3	v	0746	223	2.9	r
				0746				4296A 4296A		29.9 29.8	-		C 2.2 C 2.2		C	0746	250 274		_
			-	0759U						29.8			C 2.2		C	0744	234	3.1	G
0372		27	08568	08568	0904	S10	W14	4289	80	26.3	8	SF					32		
	LEAR	27	0856	0856	0859	\$10	W14	4289	08	26.3	3	SF		3	С		32		
	KANZ	21	U9U4	0904	0908	310	WID	4289	UB	26.4	4	SF		2					
			1406		1411			Patro											
			1655 1906					Patro Patro											
			2059		2109			Patro											
0373				2116						30.2		SN					80	1.2	DJ
				2116						30.2		SB SE		7	C	2116	90	1.2	DJ
	ralt	21	21 10E	21170	2127	31/	E32	4296		30,3	90	SF		3	С		70		

										AUG		1983							
Grp			Start	Max	End			NOAA/ USAF	C)	K P	Dur	Imp			0bs	/ Time	Area Measurem Apparent	ent Corr	
<i>‡</i>	57a 	uay 	(01)	(01)	(01)	Lat	CMD	Region	MO	vay	(MIN)	OPT XI	r ay 	200	lype	(UI)	(10 ⁻⁶ Disk)	(Si Deg)	Remarks
		28	0315		0328	No i	Flare	Patro	1										
0374		28	07133	07178	0748	511	E19	4296A	08	29.7	35	1N					260	3 . (G
								4296A			37	1N		_	C P	0717	376	4.3	
								4296A 4296A			25D 30	1 SE		2	C	0725 0722	281 124	3.2 1.4	G
															_				Ū
0375	A THN	28	0731	0733	0742	\$16	E23	4296	80	30.0	11	SN		3	٧	0733	64	-6	
0376	KHAR	28	0800E		0808D	S11	W26	4289	U8	26.4	8D	SF			Р	0802			
0377	HOLI	28	1610	1614	1625D	310	W28	4289	nα	26.6	150	SF		A	С		23		F
05//		20	1010	1014	10270	310	W20	4207	00	20.0	.,,,	J,		7	Ů		23		•
		28	1917		1927	No I	Flare	Patro	ŧ										
0378		29	0037*	0055*	0150	512	W33	4289	08	26.5	73	SN C : SF 1F SB SN	2.9				138	1.8	EFKLW
			0037					4289			63	SF			Č	0056	118	1.6	EK
			0037 0039		0140			4289 4289		26.5 26.6	65	1F CD			Č	0115	176 113	2.4 1.5	U
					0208 0135					26.5	44	SN			Č	0055	140	1.7	FW
					0059D					26.6	80	SN		3	č	0077	79	••,	F
					0203					26.5		SN C	2.9	3	Ċ		169		F
	FALE	29	0053E	01150	0151	512	W33	4289	08	26.5	58D	SN C	2.9	3	С		175		UF
0379		29	04481	04504	0501	S20	E22	4300	08	30.9	13	1N					120	2.1	FHU
					0504					30.9	16	1N			C	0450	180	2.1	H
	LEAR	29	0449	0454	0458	S20	E22	4300	80	30.9	9	\$F		3	С		59		UF
0380					0950					29.7		SF		_	_		86	.9	EH
								4293			35					0925		1.2	-
			0916 0957E		0950D 1012D					29.8 29.7	15D				P P	0926	60	•6	EH EH
	10111111									_,.	,,,,	•							
			1559 2007		1611 2030			e Patro e Patro											
			2034		2037			e Patro											
A 2 0 1	LEAC	30	0232	0237	0300	512	WO 1	4293	ΛR	30 O	37	SF		3	С		48		
ופכט	CEAR		0232	0231	0309	312	# 01	4273	00	20.0	٠,	٠,		•	Ū		40		
0382	HTPR	30	0903	0916	0945	S10	W88		80	23.8	42	SF			С	0916	10		
0383	HTPR	30	1607	1609	1620	S10	W35	4302	80	28.0	13	SF			С	1609	10	.1	
		30	1843		1853	No	Flar	e Patro	1										
0704		70	1010	1006	20400	C10	W15	4207	Λ0	20.7	900	CN					66		FK
0384	HOLI	30 30	1018	1926*	20460	510	W15	4293 4293	OB OB	29.7 29.7		SF		2	C		36		K
			1918	1938	2048D	\$10	W15	4293	08			SN		2	Ċ		95		FK
0385	HOLL	. 30	1926	1926	1935	\$10	W56	4289	08	26.6	9	SF		3	С		16		
									-00	70 1	10	CE 0					67		
0386			19405	19471 1947	1959 1957					30.1 29.8		SF C	1.0	3	С		57 114		
			1944	1948	2048D				= =	30.1		SF C	1.8	_	č		27		
			1945	1948	2001					30.1		SF C			C		29		
		30	2011		2124	No	Flar	e Patro	ı										
0387	PLIRE			0248	0251					30.5	90	SF			P	0248	48	.5	G
										30.3		SF			С	0312		1.7	F
					0320										_				
0389	CULC	31	0328	0332	0355	S10	W47	4302	80	27.6	27	SF			С	0332	120	1.8	F
0390	CULO	31	0518	0519	0523	\$15	W66	4289	08	26.2	5	SF			С	0519	20		
0391	нтр:	31	0841	0847	0853	S10	W23	4293	08	29.6	12	SF			С	0847	20	•2	
															-				

								NOAA/									rea Measurem	ent	
9⊓p #	Sta	Da,	Start (UT)	Max (UT)	End (UT)	Lar	CMD	USAF Region	Mc		Our (Min)		mp Xray		Obs Type	Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	Remark
39.2	HTPR	31	0858	0902	0910	S11	W18	4293	08	30.0	12	SF			С	0902	30	•3	E
393	KHAR	31	1036E		1055D	S 09	W5.2	4302	08	27.5	190	SF			٧	1041			DH
		31	1222		1228	No I	Flare	e Patro	ı										
394	HTPR	31	1457		1521D	S08	W52	4 302	08	27.7	24 D	SF			С	1507	10	•2	
		31	2117		2123	No 1	Flare	e Patro	1										
395	PALE	31	2135	2136	2143	509	W58	4302	08	27.5	8	SF		3	С		31		

- A = Eruptive prominence whose base is less than 90° from central meridian.

 B = Probably the end of a more important flare.

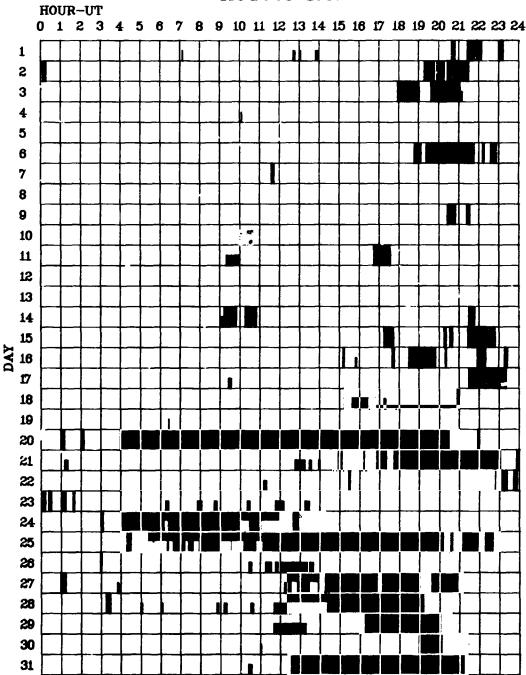
 C = invisible 10 minutes before.

- D = Brilliant point.
- E = Two or more brilliant points.
- F = Several eruptive centers.
- G = No visible spots in the neighborhood.
- H = Flare accompanied by high-speed dark filament.
- 1 = Active region very extended.
- J = Distinct variations of plage intensity before or after the flare.
- K = Several intensity maxima.
- L = Existing filaments show signs of sudden activity.
- M = White-light flare.
- N = Continuous spectrum shows effects of polarization.

- 0 = Observations have been made in the H and K lines of Ca 11.
- P = Flare shows hellum D3 in emission.
- Q = Flare shows Balmer continuum in emission.
- R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
- S = Brightness follows disappearance of filament in same position.
- T = Region active all day.
- " = Two bright branches, parallel or converging.
- V = Occurrence of an explosive phase: important, expansion within roughly 1 minute that often includes a significant intensity increase.
- W = Great increase in area after time of maximum intensity.
- X = Unusually wide H-alpha line. Y = System of loop-type prominences.
- Z = Major sunspot umbra covered by flare.

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

AUGUST 1983



Times of no flare patrol, shown here as shaded areas, combine reports from the observatories listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind, that is, of neither visual nor cinematographic; portions of a panel with only the bottom half shaded mark times of strictly visual patrol.

Abastumani
Athens
Bucharest
Catania

Culgoora Haute Provence Holloman Istanbul Kandilli Kanzelhoehe Kharkov Learmonth Lvov Manila Mitaka Monte Mario Palehua Peking Purple Mt. Ramey Tashkent Voroshilov Wendelstein Yunnan

SEPTEMBER 1983

3rp			Start	May	End			NOAA/ USAF	~	ΜP	Di-				Obc			easuren	_		
# #	Sta	Day	(UT)			Lat	נאט				Dur (Min)				Obs Type	Time (UT)		arent Dieki	Cor Sq [·r)eg)	Remarks
0001		01	01081		0116			4302		27.8		SF									
		01	0108	0109	0118	509	W58	4302	80	27.8	10	SF		3	C			30			
	LEAN	101	0109	0109	0114	208	WOB	4302	08	27.8	י	SF		3	С			27			
0002	LEAR	01	0131	0132	0141	S08	W58	4302	80	27.8	10	SF		3	С			21			
0003	PALE	01	0147	0152	0222	310	W59	4302	08	27.7	35	SF		3	С			68			F
0004	LEAR	01	0242	0248	0251	S10	W61	4362	80	27.6	9	SF		3	С			15			EF
0005				03251				4304		3.7	14							38	.6	,	F
			0324 0325		0341 0334			4304 4304		3.7 3.6	17 9	SF		3	C C	0326		60 19	•7	'	F
	PURP	01	0327E	03270		N06	E34	4304		3.7		SN			Č	0327		34	.4	,	•
0006			0623E		0901D					27.6	158D				_			15	2.6	,	DE
			0623E 0625E	0636	0653D 0741D					27.6 27.5	30D 76D				P C	0636 0629		105 120	2.6		D E
			0746E		0901D					27.5	75D				Č	0830		120	2.6		Ē
0007	RAMY	01	1320	1333	1336	S09	W65	4302	08	27.8	16	SF		3	С			12			
8000	RAMY	01	1408	14 16	1427	\$10	W65	4302	80	27.8	19	SF		3	С			23			
0009	HOLL	01	1659E	1705	1723D	S07	W68	4302	08	27.7	24D	SN		3	С			80			
010	RAMY	01	1753	1800	1807	S09	W67	4302	80	27.8	14	SF		3	С			13			
		01	2057		2111	No f	Flare	Patro	ı												
0011	LEAR	02	0409	0409	0412	509	W74	4302	08	27.7	3	SF		3	С			11			
012	ABST	02	0424E	0425	0503D	S08	W74	4302	08	27.7	39D	1F			Ρ	0425		87			D
0013	HTPR	02	0620	0629	0650	S07	W76	4302	08	27.7	30	SF			С	0629		20			
014	HTPR	02	0709	0715	0740	S07	W73	4302		27.9	31	SF			С	0715		20			
015	HTPR	02	1110	1113	1125	\$10	E73	4305	09	7.9	15	SF			С	1113		10			
016	HTPR	02	1138	1149	1211	S10	E73	4305	09	8.0	33	SF			С	1149		20			
017	HTPR	02	1208	1216	1218	S10	E53	4303	09	6.5	10	SF			С	1216		10	.2	!	
0018	HTPR	02	1213	1214	1220	N10	E27	4304	09	4.5	7	SF			С	1214		20	.2		ε
019	HTPR	02	1217	1225	1231	S 07	W76	4302	08	27.9	14	SF			С	1225		20			
020	HTPR	02	1538	1543	1549	S 07	W78	4302	80	27.9	11	SF			С	1543		10			
021		02	1605	1607	1616	506	W78	4302		27.9	11	SA (C 6.0					57			
		02	1605	1607	1613	S06	W75	4302	80	28.1	8	SN (C 6.0	2	C			34			
			1605 1605	1607 1607	1617 1618			4302 4302		27.9 27.8	12 13	SB (C 6.0	4	C	1607		68 70			
022	HOLL	02	2001	2002	2008			4305	09	8.2	7	SF		3	С			13			
023	CULG	02	2147	2243	2345	S08	E37	4303	09	5.7	118	18			С	2243		200	2.6	1	Eυ
024	HOLL	02	2233	2246	2321	S11	E70	4305	09	8.2	48	SN		3	С			42			
025	HOLL	02	2255	2257	2313	S08	W83	4302	08	27.8	18	1N I	4 2.0	3	С			68			
026	HOLL	03	0003	0004	0007	\$12	E74	4305	09	8.6	4	SF		3	С			31			
027	CULG	03	0501E	05020	0508	NOB	E05	45/14	09	3.6	7 D	SF			P	0502		40	.4		
028				08044					09	8.2	11	.	1.1					74	2.6		DEFH
		03	0802E	0804	0804D	S10	E65	4305	09	8.2	20	1N (211.0	_	P	0804		72	0		
				0806 0807	0813 0813			4305 4305	09	8.1 7.9	11	SF (3 1.1	3	C	0807	,	44 130	2.6		FH E
				0808				4305	09	8.4	10	SF			Ċ	0808	,	50 50	4.0	'	D
	KHAR	03	0804E 0807	0807	0817D			4305 4305	09 09	8.4 8.4	13D 5	SN SF.			٧	2805					H

erp.			Start	Max	End			NOAA/ USAF		I P	Dur	11	m n		Ohs	A Time	rea Measurer Apparent	nent Corr	
#	Sta	Day	(UT)	(UT)	(UT)	Lat	CMD	Region	Mo	Day	(MIn)	Opt	Хгау	See	Туре	(UT)	(10 ⁻⁶ Disk)	(Sq Deg)	Remark
029	HTPR	03	1238	1240	1241	S11	E59	4305	09		3					1240	50	1.0	
		03	1542		1546	No I	lare	Patro	ı										
030		03	2230*	2235*	2407	S09	E37	4303	09	6.7	97	1N					188	2.6	EJSU
					2434	S09	E37	4303	09	6.7	124			3	С		171		US
			2235E					4303							C C	2246	224 168	3.0	EJ
	PEKG	03	2330	2335	2340	S08	E36	4303	09	6.7	10	1F			С	2335	168	2.2	U
031	HOLL	03	2343	2343	2359	S18	W57		80	30.7	16	SF		3	С		13		
			0159 0308		0211 0309			Patro Patro											
032		04	03491	03523	0414	N10	E04	4304	09	4.4	25	SN					58	.9	EF
					0407			4304		4.5				3	С		32		F
	PEKG	04	0350	0355	0420	N10	E04	4304	09	4.5	30	SN			С	0355	84	.9	Ε
033	PEKG	04	0452	0501	0525	N09	E04	4304	09	4.5	33	SF			С	0501	168	1.7	E
034		04	05454	05504	0619	NIC	E03	4304	09	4.5	34	SF					96	1.2	DEF
			0545		0635			4304		4.5					С	0554	84	.9	Ε
			0549		0603			4304		4.5				3 2	C		44		F
		-			0600D 0613D					4.5 4.5		-		2	P	0550 0552	169 87	1.7 .9	D
035	KHAR	04	0945E		10200	N09	E00	4304	09	4.4	35D	SN			٧	0947			E
036	HOLL	04	1408	1414	1420	N14	E 16	4301	09	5.8	20	SF		3	С		42		
037	HOLL	04	1815	1818	1822	NII	W02	4304	09	4.6	7	SF		3	С		30		F
038	HOLL	04	1838	1839	1858	NII	# 03	4304	09	4.5	20	ŞF		3	С		30		F
0.70		OΔ	1859	1909	1914	NIO	WO3	4304	ΛO	4.6	15	SN					46		
,0,5			1859		1913			4304		4.6				3	С		45		
			1904E		1914			4304		4.6	10D			3	č		48		
040	HOLL	04	2049	2051	2057	N11	W04	4304	09	4.6	8	SB		3	С		45		
041	HOLL	04	2111	2112	2123	N11	W06	4304	09	4.4	12	SN		3	С		35		F
042	HOLL	04	2136	2139	2145	N11	W04	4304	09	4.6	9	SN		3	С		33		F
		04 05	2317 0300		2322 0306	No I	Flare	Patro Patro	 										
043	PURP	05	0305E	0305	03050	N09	W07	4304	09	4.6	90	SB			P	0305	90	.9	
044	LEAR	05	0611	0612	0622	N09	W08	4304	09	4,6	11	SF		3	С		46		E
045	ABST	05	0726E	0726	0740D	N08	W12	4304	09	4.4	14D	1F			P	0740	279	2.9	F
046	KHAR	05	0744E		0809D	S16	W77		08	30.6	250	SF			С	0748			D
047	KHAR	05	0803E		08120	S11	E39	4305	09	8.3	9D	SF			٧	0805			
048		05	082 28	0823*	0832	N08	W11	4304	09	4.5	10	SF					17	•2	DEKL
-	LEAR	05	0822	0823	0826			4304	09	4.5		SF		3			22		E
			0826E		084 2D					4.4	16D			_	P	0832	20	•2	EKL
			0830 0902E		0838 0909D				09 09	4.6 4.5		SF SF		2	P	0906	10	.1	D
040		ΛE	10005	1020#	11000	MIS	500	4301	00	E 4	£00	111					100	2.1	Er
049			1009E		1109D 1109D				09 09	5.4 5.6	60D 60D				p	1032	188 180	2.1	ek ek
			1009E		1040D				09	5.2				2	P	1032	197	2.2 2.0	EN
	4	7,	/-				*******		-	~ + 4		•		-	•		177		
								4304	09	4.4		SF			P	1009	10	.1	

Grp			Start	Max	End			NOAA/ USAF	a	4 P	Dur	1.	mn.		Ohe	Time	\rea M	easure:	ment Corr	
			(UT)	(UT)	(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt	Xray	See	Туре	(UT)	(10 ⁻⁶	Disk)	(Sq Deg)	Remarks
								4304										10		
052		05	11064	1110*	1143	N13	E04	4301	09	5.8	37	SF						93		
			1106	1110 1122	1145			4301		5.9 5.6	39			2						
				11200				4301 4301		5.8	43 17D			2 3	С			93		
053	RAMY	05	1342	1352	1405	S07	E62	4307	09	10.2	23	SF		3	С			21		
054	KANZ	05	1541			S18	W77		08	30.9		SB		2						
		05	1542		1555	No I	Flare	Patro	l											
Ú55	RAMY	05	1814	1827	1835	N10	W17	4304	09	4.5	21	SF		3	С			26		F
		05	1950		2005	No I	Flare	Patro	l											
)056	PALE	05	2007	2009	2020	S22	W8 1		80	30.7	13	SN	C 5.0	3	С			95		
1057	PALE	05	2017	2022U	2023D	N10	W17	4304	09	4.6	6D	SF-		3	С			45		F
		05	2024 2103 2129		2027 2119 2144	No I	Flare	Patrol Patrol Patrol	1											
058	CULG	05	2214	2215	2218	\$10	E32	4305	09	8.3	4	SF			С	2215		40	.4	F
)059	HOLL	05	∠23 0	2239	2255	N08	W18	4304	09	4.6	25	SF		3	С			44		
060	CULG	06	0109	0114	0120	N07	W21	4304	09	4.5	11	SM			С	0114		110	1.1	FJ
061				05384				4304		4.5	15							60	.6	EF
			0535 0536E	0538 0542	0551 0550			4304 4304		4.5	16 14D	SN SN			C	0538 0542		60 59	.6 .6	F E
					0635					4.5	10				P	0630		43	.5	D
063		06	1041	10464	1101	NO6	W25	4304	na	4.6	20	SF						38	.4	EL
			10=0E		1145D					4.6	65D			1	Ρ	1050		84	1.0	LL
			1041		1101			4304		4.6	20				C	1046		10	.1	
	KHAR	06	1044E	1047	11000	NO5	W26	4304	09	4.5	16D	SF			Р	1047		20	•2	EL
				1224*						4.6	35							10	.1	
	HTPR			1224	1232	-				4.6	11				Ç	1224		10	.1	
	HTPR HTPR			1241 1242						4.6 4.6	28 27				C	1241		10	•!	
															-	1242		10	.1	
				1327 1610	1340					4.7	17				C	1327		20	•2	_
				0517						8.4 4.7	8 6				C C	1610		40	.4	E
				0544		_				4.4	31D				P	0517 0544		87	1.1	D
	ISTA				0615					7.8	10				-	0744		87	1.1	D
		-		1140						4.6	30				С	1140		30	.4	CF E
			1216				-			4.6	17				С	1222		10		•
			1311							4.4	13			3	C	1644		30	•1	
	1			14296						4.6	55	SN			v			68	.8	E
ייטו	D 414V			1435	1508		W40			4.6	59	SF		3	С			75	•0	-
	HTPR				1500	NOB	W4 1	4304	09	4.5	44	SN			C	1429		60	.8	E

en.			Start	May	End			NOAA/ USAF	^	4 P	Dur				Obe	Time	\rea Me Aopa	easure	_		
Grp #	Sta	Day	(UT)		(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt	Xray	See	Type	(UT)	(10-6	Disk)	(Sq	orr Deg)	Remarks
0074		07	 1738	1742						4.5	16							74			 F
JU/4				1742	1751					4.5	13	SN		3	С			52			•
	PALE	07	1738	1742	1757	N06	W43	4304	09	4.5	19	SN		3	С			95			F
		07	1807		1818	No f	Flare	e Patro	l												
			1932		1936			Patro													
			1944 2030		1954 2034			Patro Patro													
			2120		2235			Patro													
0075	VOR	07	2256E		23 10D	\$12	E26	4307	09	9.9	14D	SF			Р	2258		45		•5	DJ
		07	2313		2327	No I	Flare	Patro	1												
0076	LEAF	₹ 08	0329	0331	0338	N09	W50	4304	09	4.4	9	SN		3	С			55			F
0077	LEAF	R 08	0427	0431	0456	S11	E25	4307	09	10.1	29	SF		3	С			86			FS
0078		08	0609*	0611*	0705	S 10	W22		09	6.6	56	SN						154	1	.8	EFSU
				0611		S11	W23		09	0.0	350				Ρ	0611		200		.2	SF
			0609		0653		W21		09	6.7 6.5	44			3	C	~~		122		-	U
			0622 0630E		0723 06500		W23		09	6.5	61 20D			2	P	0644 0635		120 28 1		•3 •3	EU
			0714		0719		W23		09			ŚF		_	Ċ	0714		50		.5	Ε
0079	HTPF	₹ 08	0932	0936	0945	S15	W23		09	6.6	13	SF			С	0936		40		.4	
0800	нтря	₹ 08	1305	1307	1320	N08	W57	4304	09	4.3	15	SF			С	1307		10		.2	
0081	LEAS	₹ 09	0630	0632	0638	N11	W63	4304	09	4.5	8	SF		3	С			30			
0082	нтря	₹ 09	1147E		1157D	N06	W14	4311	09	8.4	10D	SF			С	1156		20		•2	Ē
0083	HTP	₹ 09	1231E		1238D	N06	W14	4311	09	8.5	7 D	SF			С	1235		20		•2	Ε
0084	HTPF	R 09	1343E		1556D	N06	W15	4311	09	8.4	133D	SN			С	1532		40		.4	Ε
		09	1907		2044	No 1	Flare	e Patro	ı												
0035		09	2259*	23104	2327	N19	E11	4308	09	10.8	28	SF						138	2	.6	FS
			2259	2310	2326			4308		10.9	27			_	P	2310		250	2	•6	SF
			2307 2313	2313	2329 2326			4308 4308		10.6 11.0	22 13	SF		3	C			139 26			F F
	PALI	- 09	2313	23 14	2320	1117	C 14	4300	09	11.0	כו	31		,	C			20			•
0086				0221 0219U						10.2		SF SN			P	0219		92 130		.4 .4	FU F
				02190						10.2				3	Ć	0219		52	'	••	F
				0221						10.2		SF		3	Č			94			UF
0087	BUC	A 10	0705		0725	S20	E09	4310	09	11.0	20	SN			P	0710		16 1	1	.9	E
0088		10	0745	0750	0836	S20	E09	4310	09	11.0	51	1N						138	1	.6	ΕI
	CAT	A 10	0745	0750	0840D	S17	E09	4310		11.0				2		0750		197		.2	
	HTPF	₹ 10	0802E		0836	S23	E09	4310	09	11.0	34D	SN			С	0813		80		•9	EI
0089		10	1045	1100	1210	S23	E10	4310	09	11.2	85	SF						81	1	.0	Ε
			1045		1145D					11.2				2	P	1100		112		.4	_
	HIP	₹ 10	1122E		1210	525	FOA	4310	09	11.2	48D	3 F			С	1131		50		.5	E
0090	PALI	E 10	2050	2102	2121	N03	E19	4313	09	12.3	31	SN	C 1.0	3	С			61			F
		10	2055		2059	No 1	Flar	e Patro	ı												
0091				07219				4313		12.3		SN			_			102		.2	CEFU
				0724				4313		12.3		SB			С	0722		113	1	.2	С
			0720 0720	07250	0732 0744			4313 4313		12.3		SN			С	0722		107	1	.1	Ē
	LEA	R 11	0721	0721	0739	NO2	E14	4313	09	12.3	18	SF		3	Ċ			53		-	F
			0721	0726	0755			4313		12.j				2	C	0726		71 160		.a	EU
			0725	0730	0805			4313		12.3				2	č	0730		169		.8	

Can			C++	Mari	F4			NOAA/ USAF	CI+	40	D				ο		rea Measure	_	
Grp #	Sta ()ay	Start (UT)		End (UT)	Lat	CMD				Dur (Min)		np Xray	See	Obs Type	(UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	Remarks
0092	HOLL	11	1632	1637						8.3	14			3	С		16		
0093	HOLL	11	1701	1702	1711	S 09	W47	4305	09	8.2	10	SF		3	С		21		
0094	HOLL	11	2058	2059	2108	S11	W24	4307	09	10.1	10	SF		3	С		35		F
0095	HOLL	11	2335	2337	2356	S10	W5 1	4305	09	8.1	21	SF		3	С		37		
0096	KHAR	12	0932E	0932	0940D	S06	W33	4307A	09	9.9	8 D	SF			٧	0932			D
0097	KHAR	12	1015E	1016	1021D	S10	W55	4305	09	8.3	6D	SF			٧	1016			D
0098	KHAR	12	1C40E	1041	1053D	N12	E45	4320A	09	15.8	13D	SF			V	1040			D
0099		12	1611	16261	1814	S11	W30	4307	09	10.4	123	2N N	4 1.0				600		F
	HOLL RAMY			1626 1627	1808 1819			4307 4307		10.5 10.4	117 128		1 1.0	3 3	C C		662 539		F F
0 100	HOLL	12	1619	1626	1824	S05	W44	4307A	09	9.4	125	SN		3	С		147		F
0101	PALE	12	1722E	1728U	1753	\$12	W30	4307	09	10.5	31D	SF		3	С		46		F
0 102		12	1728	1743	1755	508	W46	4307	09	9.3	27	SF					96		
				1729ป 1743				4307 4207		9.2 9.3				3 3	C		35 158		
		12	2039		2103	No f	Flare	e Patro	I										
0103	CULG			2334	2336	508	W34	4307	09	10.4	8	SN			С	2334	30	.4	н
0 104	PALE	13	0143	0144	0154	S24	W23	4310	09	11.3	11	SF		3	С		30	-	
0105	ABST	13	0403E	0403	0427	S23	W27	4310	09	11.1	24D	SF			Р	0403	87	1.1	D
				0650					09	16.8	25	SF			С	0656	20	.3	K
			0700E		0820					11.6	80D	1N						-	BU
				0724					09	16.8	24	SF			С	0724	20	.3	
0109			0807	0810	0813			4307		10.5	6	·					25	.4	Ε
,	KHAR	13	0750E 0807		0850D 0813	S08	W38	4307	09	10.5	60D 6	SN			P C	0844 0810	30 20	.4	Ē E
0110			0805					4307A			10			2	С	0810	56	•7	-
								4307						-	С	0831	10	•.	
-								4317		-		_			J	003.	15	•2	D
0112	KHAR	13	0844E	0844		S13	E44	4317	09	16.7 17.0	16D				P C	0844 0854	10 20	•2	Ď
			0911E	0854 0914	0918D					16.7		SF			P	0654	20	.3	D
0113	HTPR	13	0942	0944	0947	S14	E48	4317	09	17.0	5	SF			С	0944	20	.3	
0114	HTPR	13	1048	1048	1053	S24	W30	4310	09	11.1	5	SF			С	1048	20	•2	
0115				11146						16.9	14				^		53	.8	E
	HTPR	13	1116	1114	1119	S14	E45	4317 4317	09	17.0 16.9	16 3	SF		1	C	1114	50	•6	Ε
	CATA			1120	1130					16.9	10	S		1	C	1120	56	.9	_
	HTPR				1155					17.0	19	SN			C	1140	30	.4	E
				1306						17.0	19	SN			C	1306	20	.3	_
				1320				4310		11.1	17				С	1320	30	.3	E

Grp			Start	Mav	Fnd			NOAA/ USAF		4P	D	1.			Obs			asure	_		
#	Sta (Day	(UT)	(UT)	(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt	Xray	See	Type	(UT)	Appa (10 ⁻⁶	Disk)	(Sq	orr Deg)	Remark
119			1412					4307		10.6	20					1421		50		.7	E
120	HTPR	13	1548	1550	1558	S14	E45	4317	09	17.0	10	SN			С	1550		30		.4	Ε
121			16062		1617	-				11.2	11	SF						26		.2	EF
	RAMY HTPR		1608	1610 1610	1620 1614			4310 4310		11.1	14 6	SF SF		3	C	1610		31 20		.2	F E
		13	1715		1724	No I	Flare	e Patro	ı												
122			1802		1824			4310		11.1	22							48			
			1802 1822E	1803 1822U	1813 1836			4310 4310		11.2	11 14D			3 2	C C			67 30			
123	HOLL	13	2231E	22320	2253	S10	W46	4207	09	10.5	220	SF		2	С			82			F
		13	2318		2322	No I	Flare	Patro	1												
124				03411				4310		11.1	23							39		.6	EF
				∪342 0339U				4310 4310		11.1	25 17D	SF SN			C P	0342 0339		55 16		,9 ,3	E E
	LEAR	14	0339	0341	0356	S23	W39	4310		11,1	17	SF		3	C			47			F
125	PEKC	14	03 7	0403	0420	N09	W23	4314	09	12.4	23	SF			С	0403		63	•	.7	Ε
126				04375 0437				4307A 4307A		10.4 10.4	14D 13D				Р	0437		68 87		.2 .5	DE D
				0442				4307A		10.4		SF			P	0442		50		.8	E
127	HTPR	14	0903	0912	0930	S06	W54	4307A	09	10.3	27	SF			С	0912		30		.5	Ε
128	-		09351 0935	09387 0938				4317 4317		16.8 16.8			1.8		v	0938		57 64		.7 .8	Ε
	WEND	14	0935	0940	0957	S12	E33	4317	09	16.9	22	SN (1.8		ċ	0940		37	•	.5	_
	HTPR KANZ	14	0936	0940 0939	1007 0955	\$12	E35	4317 4317	09	16.8	19	2N	0 1.8	2	C	0940		70		,8	Ε
120			0945E		0945D					16.8				1		0945		56		.7	_
				1045			-			11.0	14				С	1045		30	•	,4	E
	HTPR	14		1117	1139 1145	S15	E74	4321 4321		20.3	34 40				С	1117		30 30			
	WEND KANZ			1117 1117	1134 1137			4321 4321		20.1	22 24	SF SN		2	С	1117		30			
131	KANZ	14	1228	1228	1246	\$20	W35	4310A	09	11.8	18	SF		2							
132	ATHN	14	1229E	1233	1243	S04	W49	4307A	09	10.8	14D	SB		3	٧	1233		48		.8	
133	PURP	15	0054E	0055	00580	S14	E23	4317	09	16.8	4D	SN			С	0055		27		.3	E
134				04521						16,8			2.4		_			25	1.	.6	EFHJ
			0451E	0452 0453				4317 4317		16.8 16.8	21D 29				P C	0452 0453		75 20	2. 1.		EHJ EH
	LEAR	15	0452	0453	0503	511	E21	4317	09	16.8	11	SBC	2.4	3	С			81			F
				0649					09	16.8	10	SF			С	0649	1	31	1.	.5	DJ
136				0755					09	16.7	17D	SN			٧	0755					
			0945* 0945	1000* 1000	1021 1000D					16.8 16.8	36 150			2	Р	1000		12 12	1.	_	EH
	KHAR	15	1013E		10280	S14	E17	4317	09	16.7	15D 4	SN		2	V	1015	•	-	•		EH
138			1041	10441						16.8	8										EH
	KANZ	15	1041	1045	1049	514	E 19	4317 4317	09	16.9	8	SB		2							

						~		NOAA/											
Grp	C+-	Dav	Start	Max	End		CMD	USAF	, cr	MP	Dur	2-4	Imp	•	0bs	Time	rea Measure Apparent	Corr	_
#													т хгау 	266	туре 	(01)	(10 ⁻⁶ Disk)	(Sq Deg)	Remarks
0 139	WEND	15	1111	1114	1130 1130	512	E63	4321		20.3	19 19				С	1114	47 38	.9 .9	DG G
					1118D 1140D					20.5	5D 250			1	V P	1115 1135	56		D
0 140		15	1115*	1128*	1154	S14	E18	4317	09	16.8	39	SN					89	1.0	
			1115 1123	1130 1139	1140D 1152					16.7 16.7	25D 29			1	P C	1130 1139	84 94	1.0 1.0	
	KANZ	15	1128	1128	1155					16.9	27			2		.,,,,			
0 14 1	WEND		12473 1247	12513 1251	1301 1300	_		4317 4317		16.9 16.7	14 13	-			С	1251	88 88	1.0	
				1254	1302					17,0	12			2	Ü	1271	00	1.0	
0 142				14 125 14 12	1445			4317 4317		16.8 16.7			C 9.3 C 9.3		С	1412	140	1.2	EF
	HOLL	15	1413E	14 14U	1453	\$13	E15	4317	09	16.7	40D	SB	C 9.3	3	Ċ	1412	106 195	1.2	F
			1413 1449E	1417	1452 1452D					16.8 16.8	39 30	SN		2	С	1450	120	1.2	Ε
0 143	HOLL	15	1630E	1640	1712	S 07	W56	4315	09	11.5	42D	SF		3	С		51		SU
0 144					1726			4317		16.8			C 1.2				33		FK
			1651 1651	1702 1719	1726 1726			4317 4317		16.8 16.8	35 35		C 1.2	3 3	C C		43 27		K FK
		15	1813		1817	No f	lare	Patro	l										
0 145	CULG	15	2117	2120	2132	S12	E12	4317	09	16.8	15	SN			C	2120	100	1.1	
0 146	ABST	16	0626	0629	0645	S11	E05	4317	09	16.6	19	SF			С	0629	87	.9	DK
0 147	YUNN	16	0651	0659	0710	S12	E06	4317	09	16.7	19	SF			С		80	.9	T
0 148	YUNN	16	0725E	0734	07380	S12	E05	4317	09	16.7	130	SN			Р		80	.9	Т
0 149	LEAR	16	0805	0807	0816	S12	E06	4317	09	16.8	11	\$F		3	С		31		
0150	YUNN	16	0906E	09060	0936D	S12	E04	4317	20	16.7	30D	SN			P	0906	80	.9	T
0151	CATA	16	1140	1145	11450	S15	E05	4317	09	16.9	5 D	S		1	Р	1145	112	1.2	
		16	1519		1525	No f	lare	Patrol											
0152	HOLL	16	1556	1605	1614	S12	E04	4317	09	17.0	18	SF		3	С		38		
0153	HOLL	16	1917	1920	1924	S08	E89	4319	09	23.5	7	SF		3	С		11		
		16	2017		2032	No f	lare	Patro											
0 154	PALE	16	2033E	2035U	2100	S12	WO 1	4317	09	16.8	27D	SF		3	С		90		
0 155	LEAR	17	G249	0301	0309	S03	W68	43!5	09	12.0	20	SF		3	С		27		F
0 156					0716 07090					11.9	12 5 0				P	0709	12 13		D D
	LEAR	17			0716 9725D	S04	W7 1	4315	09	12.0	6 20	SF		3	C	0724	14 10		J
0 157				07553	0807					16.7	14				•	J. 27	23	.3	Ε
	LEAR	17		0755	C807 0758D	S13	80W	4317	09	16.7	14 14D	SF		3	C	0758	21 25	.3	E
0 158				07582				4315		11.9	5				•	37,70		•3	
	PEKG	17		0758	0758D 0804	S04	W74		09	11.8	50	SF		3	P C	0758	14 13		D D
					1331						5			ز		1204	16		-
, 127 	n :FK	ı/ 	1266	12 4 	1221 	31J	# IU	721/ 	υ ν 	16.8	9	9r			C	1324	50	.5	E

C			C+a-+	Mess	C			NOAA/	~	40	O	1		0 t		Area Measure		
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	USAF Region	Mo	4P Day	Dur (Min)	Imp Opt Xray	See	Obs Type	Time (UT)	Apparent (10 ⁻⁶ Disk)	(Sa Dea)	Remarks
 0 160															i430	20	.2	E
														Ū	,50			
0 16 1			1552	1220				4317 4317				SN SN		С	1554	28 20	•2 •2	ef E
			1555	1556	1620					16.7	25		3		17.4	37	•4	F
0163	HOLL	17	1717	1707	1746	C 1 7	1./ 1.7	47.17	00		70	Chi	-	•		105		_
0 10 2	HULL	. 17	1713	1723	1745	313	W 13	4:17	09	16.7	32	SN	3	С		105		F
0 163	HOLL	17	1842	1846	1850	S04	W82	4315	09	11.6	8	SF	3	С		33		
0164					0151	N14	W65	4315A	66	13.1	14	SF				27	.3	
			0137					4315A		12.9			_	C	0139	60		
					0152					13.2			3	C		18		
					0150 0148			4315A 4315A		13.2 13.2	12 8	SF	1	V C		15 15	•3	
													_			.,		
0 165	CATA	18	0855E	0855	0910D	S06	£68	4319	09	23.5	15D	S	1	Р	0855	56		
0 166	CATA	18	1050	1100	1115	SO ^r ⁄	W90	4315	09	11.7	25	1	1	Р	1100	56		
0167	ABST	19	0617	0618	0625	M15	W70	4315A	09	14.0	8	1N		С	0618	87		DV
0 168	KANZ	19	1117	1121	1139	S 07	E57	4319	09	23.7	22	SF	2					
0169	KANZ	19	1346	14 14	<i>1</i> 1457	N15	W85	4315A	09	13.1	71	SN	2					
0170	YUNN	20	0428E	0430	0435	S13	W47	4317	09	16.6	70	SN		P		32	•5	Ε
0171				06191				4317	09	16.8	10	SN				57	•9	D
•				0619	0631			4317		17.1	15		2	V	0619	64	1.0	U
	CULG			0619	0623			4317		16.6		SF	_	Ċ	0619	20	.3	
			0618	0620	0624			4317		16.8	6			С	0620	87	1.4	D
	KANZ	20	0618	0620	0625	513	W46	4317	09	16.8	7	SN	1					
0172				0731*				4319		23.2	19					64	.8	ES
		-		0731	0748			4319		23.2	20		3			91		Ş
	HTPR			0731 0733	0801 0735			4319 4319		23.1	33 7			C	0731	30	.4	Ł
				0742				4319		23.2	7		2	C V	0733 0742	40 95	.5 1.4	
A 172		_											_				•••	
					0810D					27.4	22D			٧	0750			DH
0174				0804* 0805	0836 0811			4317 4317		16.6 16.8	39 14	SN	2	^		51 27	1.1	DEKT
					0812					16.7	15	SF	3 2	С		23		
			0801E		0814D					16.6	130		•	٧	0804			D
			0804	0811	0900					16.8	56			Ç	0811	20	.3	EK
					0814					16.6		SN	_	С		16	•3	DT
			0820 0824	0828 0834	0855 0842			4317 4317		16.7 16.6	35 18		2	_		64		C'T
	LEAR			0831	0842			4317		16.5	14	SF	3	C		64 24	1.1	ET
				0832	0832	-		4317		16.6	4	SN	2	Ū		24		
			0846	0850	0901			4317		16.6	15	1N	-	C		161	?.8	T
0175	HTPR	20	0953	1014	1048	\$13	WO 1	4321	09	20.3	55	SF		С	1014	10	•1	E
0 176		20	10376	10407	1055	S12	W48	4317	09	16.8	18	SF				10	.1	D
			1037		1055					17.0	18			C	1040	10	.1	_
			1043E 1043		1050D 1055					16.7 16.8	7D 12		2	٧	1045			D
0177					1106D			,		27.5	130		•	٧	1053			
								4201						•	رون	**	_	_
0 178					1135 1140					20.3	23 28			С	1115	20 20	.2 .2	E
					1130			4321		20.2	16		2	•	1112	20	•4	-

Grø			Start	Mes	End			NOAA/		40	13	1		0h-	T1	\rea Measure Apparent	_	
∌rγ #	Sta	Day	(UT)	(UT)	(UT)	Lat	CMD	USAF Region	Mo	MP Day	(Min)	Opt Xra	y See	Obs Type	(UT)	Apparent (10 ⁻⁶ Disk)	(Sa Dea)	Remarks
180	KAN7	20	1206	~				4317					2			(10 ° DISK)		
													2					
181	нтрр		12143	12183 1218	1232 1230			4321 4321		20.2				c	1218	30 30	•3	E
			1217	1221	1233					20.1			2	С	1210	30	•3	Ε
182	HTPR	20	1332	1335	1343	S 13	W48	4317	09	16.9	11	SF		С	1335	10	.1	
183	HTPR	20	1452	1503	1513	S13	W50	4317	09	16.8	21	SE		С	1503	30	•5	Ε
								4317		-		SF	3	С	1505	19	• •	L
.04	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1745						10.9	7	31	,	U		19		
		20	1944		1946	No I	Flare	e Patro	ı									
185	MANI	21	0204	0207	0215	S13	W57	4317	09	16.8	11	SF	1	٧		25	•5	
186								4323A				SN C 1.				37	.6	
				0640						26.2			2		0640	56		
			0639 0639	0642				4323A		26.2			7 2	C	0642	30		
			0640					4323A 4323A		26.1	12	SN C 1.	2	С		33		
			0643E	0044				4323A		26.1	12D		2	С	0643	30	•6	
187	KHAR	21	0820E	0830	1052D	S30	E90		09	28.4	152D	2F		Ρ	0913	150		н
188	CATA	21	0915	0920	0930	S17	E90	4324	09	28.2	15	1	2	С	0920	56		
189	HTPR	21	1038	1039	1043	S12	W62	4317	09	16.8	5	SF		С	1039	30	.6	E
190	KHAR	21	1040E	1045	1100D	S2 6	E90	4324	09	28.3	200	SN		٧	1045			н
191	CULG	21	2108	2112	2119	S13	W22	4321	(19	20.2	11	SF		С	2112	40	.4	
192		22	00413	0046*	0129	S08	E16	4319	09	23.2	48	SN C 1.	0			99	1.2	EFJS
				0050	0121	S07	E 16	4319	09	23.2	40	SN		С	0050	130	1.4	SF
					0115			4319		23.1	33			С	0052	108	1.2	EJ
				0046	0128			43 19		23.2		SN C 1.	03			62		F
	YUNN	22	0124E	0124	0151	S07	E 16	4319	09	23.2	27 D	SN		Р		96	1.1	E
193				0855				4323A		26.2	18					20	•3	D
			0845E					4323A		26.2	15D			V	0848			D
	HTPR	22	0852	0855	0910	517	E49	4323A	09	26.1	18	SF		С	0855	20	.3	
194	KHAR	22	0856E		0903D	S22	E85	4324	09	28.9	7 D	SF		٧	0856			D
195	KHAR	22	0914E		0930D	S18	E50	4323A	09	26.2	16D	SF		٧	0914			D
196	KHAR	22	094 5E	0945	1013D	S18	E50	4323A	09	26.2	28 D	SF		٧	0945			D
197	HTPR	22	0947	0950	1000	S23	E82	4324	09	28.7	13	SN		С	0950	10		
198	HTPR	22	1127	1130	1134	S23	E81	4324	09	28.7	7	SF		C	1130	10		
199	HTPR	22	1235	1243	1255	S23	E80	4324	09	28.7	20	SF		С	1243	20		E
200		22	13052	13111	1330	S23	E7A	4324	00	28.5	25	SN				20		E
	HTPR	22	1305 1307	1312	1338 1322	\$23	E79	4324 4324	09	28.6 28.4	33 15	SN	2	С	1312	20		Ē
201				1508*				4317		16.9	156		_			45		EK
	HTPR			1532	1545					16.8	110			С	1532	20		EK
				1508	20020					16.9	2980		3	č	.,,,,	28		ĸ
				1735	2002D	S14	W76	4317		16.9	298D		3	C		128		ĸ
	HOLL	22	1534E	1535	1546	S12	W74	4317	09	17.1	12D	SF	3	С		15		
	HOLL	22	1655	1736	1803	S11	W75	4317	09	17.1	68	SN	3	С		36		
202	HTPR	22	1505	1514	1518	S23	E78	4324	09	28.6	13	SN		С	1514	20		E
																		~

Cen			C++	Mass	End			NOAA/ USAF		4P						A	rea Measuren Apparent		
Grp #	Sta D	ay	Start (UT)	(UT)	(UT)	Lat	CMD	Region	Мо	Day	(Min)	Opt	Xray	See	Туре	(UT)	(10 ⁻⁶ Disk)		Remarks
0203				1544*						28.5	23	SN					11		FK
	HOLL HOLL			1544 1601	1605 1605			4324 4324		28.5 28.5	23 23			3 3			13 11		K FK
	HTPR				1605					28.6	13				č	1601	10		,,,
0204	HTPR	22	1616		1634D	S12	E78	4323₽	09	28.5	18D	SN			С	1626	20		
0205				1716*						28.5	18						18		F
	HOLL			1716 1732				4324 4324		28.4 28.6	13 3	SF SF		3 3	C C		19 16		F F
0206	HOLL	22	1757		1804				09	28.4	7	SF		3	С		15		F
0207		22	1823	1829*	1903	S12	W75	4317	09	17.1	40	SN					20		к
020	HOLL	22	1823	1829	1903	S12	W75	4317	09	17.1	40	SF		3	C		19		K
	HOLL	22	1823	1843	1903	S12	W75	4317	09	17.1	40	SN		3	С		22		К
0208	HOLL	: 2	1823	1824	1827	S21	E75	4324	09	28.5	4	SF		3	С		12		
0209	HOLL	22	1958	1959	2004	S20	E72	4324	09	28.3	6	SF	C 1.1	3	С		25		
0210	CULG	22	2245	2246	2249	S14	E53	4323A	09	26.9	4	SF			С	2246	40	•7	
0211	CULG	23	0107	0110	0128	S13	E68	4323D	09	28.2	21	SF			С	0110	60		
0212				0536				4323D				1N			_		54		D
			0532 0534					4323D 4323D				SF IN			C C	0536 0536	20 87		D
0213		23	06456	06504	0.503	S17	F38	4323A	09	26.2	18	SN					85	1.4	DK
0213	CATA	23	0645	0650	0710	S17	E38	4323A			25	S		2	Ç	0650	112	1.6	
	ABST ISTA			0652	0703 0700			4323A 4323A		26.3 26.1		SN SF			С	0652	87	1.3	DK
	YUNN	23	0651E		0701	\$17	E39	4323A	09	26.2	10D	SN			Р		96	1.4	
	LEAR	23	0651	0654	0701	S17	E38	4323A	09	26.2	10	SF		3	С		46		
0214	ISTA	23	0712		0717	S22	E68	4324	09	28.5	5	SF							D
0215	HTPR	23	0848	0852	0908	S 19	E65	4324	09	28.3	20	SN			С	0852	20	.5	Ę
0216				09212						28.4		SN			•		14	.5	D
	YUNN			0921 0923	0932 0935			4324 4324		28.5 28.3		SN SF			C	0923	8 20	.5	D
		~-	1446%	1440#	1520				00	10 4	40	CNI					39	.9	EGK
0217	HTPR			1449* 1449	1542					18.4 18.5		SN SB			С	1523	40	.9	EK
	KANZ	23	1443	1451	1455D				09	18.4	120	SB		1		4440	40		•
	WEND	23 23	1444 1516	1449 1522	1502 1543	NII NII	W69 W70	4322 4322		18.4 18.4		SN SF			C	1449 1522	40 38		G G
0218		23	1542	1542	1554	S16	E60	4323D	09	28.2	12	SN					48	.8	EF
	HTPR	23	1542	1542	1551	S17	E60	4323D	09	28.2		SB		_	C	1542		.8	E
								4323D 4323D		28.1 28.3		SF SF		3 3	C		66 38		F
0219				1608*				4322	09	18.4	18	SN					39	.9	EG
	WEND		1603	1610				4322		18.4		SN			C	1608 1616		.9	G E
			1603 1606	-	1625 1623			4322 4322		18.4 18.4		SF		3		1010	59	• •	-
			1609	1609	1614			4322	09	18.5	5	SF		3	С		14		
0220	HOLL	23	1647	1649	1654	N17	W67	4322	09	18.6	7	SF		3	С		22		
0221			1806		1829					28.5			C 4.3		_		67		FH
			1806 1806		1832 1826					28.4 28.5	26 20		C 4.3		C		66 68		H F
	1 11616			,	2228			e Patro				J. •		-	-		· -		
		25	2222		2220	niO	riar	e raire	, ,										

Grp			Start	Max	End			NOAA/ USAF	O	4P	Dur	le	no.		Obs	Timo	Ann	asurer Tent	Corr	
#	Sta	Dav	(UT)	(UT)	(UT)	Lat	CMD	Region	Mo	Dey	(Min)	Opt	Xray	See	Type	(UT)	(10-6	Disk)	(Sq Deg)	Remarks
		23	2245 2312		2307	No f	Flare	Patro Patro	t											
222	LEAR	24	0414	0418	0426	S21	E57	4324	09	28.5	12	SF		3	С			25		Ε
223	HTPR	24	1139	1140	1144	S20	E53	4324	09	28.5	5	SF			С	1140		10	•2	
	HTPR	24			1231 1228 1234	S20	E53	4324 4324 4324	09	28.6 28.6 28.6	12 9 12	SF		3	C	1222		20 10 31	•2 •2	E E
225	HTPR R AM Y	24 24 24	1545 * 1545 1626		1750 16120 1748	\$19 \$20 \$16	E48 £51 E45	4324 4324 4324	09 09 09	28.3	125 27D 82	SF (0 1.2 0 1.2	3	C	1558		36 10 18	.2 .2	F
				1741						28.4	26	SF		3	C			39 78		F F
		24 24 24 24 24 24	1632 1957 2018 2051 2108 2144 2400 0000		2013 2046 2105	No F No F No F No F No F	lare lare lare lare lare	Patro Patro Patro Patro Patro Patro Patro Patro Patro	! ! ! !											
	VORO	25 25	0157E 0204E	0215U	0257 0234D	S20 S18	E45 E47	4324 4324 4324	09 09	28.5 28.7	51D 60D 30D	SN (SB (SN	0 1.7 0 1.7		C P	0215 0204	1	76 02 45	1.2 1.7 .8	EJ
				02170						28.5						0217		80	1.2	_
	PURP CULG LEAR	25 25 25	0321E 0322 0324		0336 0334 0337	\$17 \$16 \$16	E15 E14 E14	4323A 4323A 4323A 4323A 4323A	09 09 09		14 15D 12 13 5D	SF SF		4	Р	0332 0324 0331		48 21 50 57 64	.5 .2 .5	E
228	LEAR	25	0343	0344	0351	S20	E44	4324	09	28.5			1.2	4	С			3.	•	-
229	LEAR	25	0501	0501	0517	S19	E43	4324	09	28.5	16		-	3	С			34		
230	LEAR	25	0524	0526	0538	S20	E42	4324	09	28.4	14	SF		3	С			3 7		
231	KHAR	25	0835E	0836	9842D	S14	E16	4323A	09	26.6	70	SF			٧	0836				D
	LEAR	25		0901 0901		\$20	E40		09	28.4 28.4 28.5	13 14 11	SF		3	С			41 41		D D
			0945E		09530					28.1	8D				P	0945				D
			1024E		10320					27.8	8D				' V	1026				н
				1323						28.3	12			2	•	1020				П
236		25 25	15381 1538		1544 1545 1544	\$16 \$16	E34 E35	4324 4324 4324	09 09	28.2 28.3 28.1	6 7	SF		3	C			29 33		
										-	-			-				25 26		
	PALE			1722 19253	1728			4324		28.2 28.4	10		1.8	3	С			26		r
		25 25	1915 1922	1927 1925	2012 2020D 2010	S17 S18	E35 E35	4324 4324	09 09	28.5 28.5 28.5 28.3	57 58D	SN C	1.8	4	C C C		1	24 32 64 77		F F
239		25 25	2129 2129	21292 2129	2139	\$16 \$17	E30 E30	4324 4324	09 09	28.2 28.2 28.2	10 12 7D	SN SF	. • -	3		2131		76 41	1.4 1.4	,

			C++	Mess	End			NOAA/ USAF	~	v P	De-				Obc	Ties	\rea M	easure arent	_		
	Sta D	ay	Start (UT)	(UT)		Lat		Region			(Min)	Opt	mp Xray	See	Type	(UT)	10-6	Disk)		orr Deg)	Remark
240	HOLL	25	2258	2300	2322	518	E33	4324	09	28,5	24	SN	C 1.1	4	°			29			F
241	YUNN	26	0231E	02310	0235	518	E30	4324	09	28.4	4D	SN			F	0231		48		.6	£
242	ISTA	26	0525		0540	S21	E40	4324	09	29.3	15	SN									E
243	ISTA	26	0640		0644	\$13	W16	4323A	09	25.1	4	SN									co
244		26	0859	0905	0920	522	E 18	4324	09	27.7	21	SF						40			EFU
			0859 0904E	0905	0920 0919D			4324 4324		?7.8 27.8	21 15D			3	C P			40			UF E
245	RAMY	26	1055	1105	1156	\$19	E28	4324	09	28.6	61	SF		4	С			60			F
		26	1939		2008	No I	Flar	e Patro	I												
246	LEAR	26	2352	2356	2420	S 17	E20	4324	09	28.5	28	SF		3	С			81			F
247		_	00362 0036		0047 0042					1. 1.0	11	SF SN			С	0038		39 27		.8 .5	EFGJ EJ
			0036					4326		30.9					C	0038		80	1	.4	
			0038		0046			4326		30.8	8	SF		3	С			28		-	F
	PURP	27	004 1E	0041	0049	S17	E53	4326	10	1.0	8D	SF			С	0041		21		.4	G
248					0052					28.6			C 1.0					32		.5	F
	-			0044 0046	0051 0054			4324 4324		28.6 28.6			C 1.0 C 1.0		C	0046		23 41		.5	F
249		27	01071	0109	0112	S18	E 16	4324	09	28.3	5	٤:7						57		.8	EJ
	VORO				0109D					28.3		æ			P	0108		72		.8	EJ
	LEAR	27	0108	0109	0112	S18	E17	4324	09	28.3	4	SF		3	С			42			
250		27	0544E	0551	0649D	\$14	W61	4327	09	22.6	65D	1N						122	2	.8	
					0649D					22.7					Р	0551		148		.4	`~, `\
	YUNN	27	0648E	0648U	0649D	S14	₩62	4327	0,	22.6	10	1N			P	0648		\$5	2	2.3	
251	ISTA	27	0640		0645	\$22	E12	4324	19	28.2	5	SN									ÐK.
252		27	0732*	0835	08!7	\$12	W60	4327	ე9	22.8	45	SF						40		.4	DEH
			0722E		0810					22.9					C	0742		20		.4	-
					0751					22.5					P P	0744		80			E
			0806E		0811D 0850					22.7 23.0		-			C	0806 0835		20		.4	DH E
			0828E		0850D					22.7					v	0845		23		•-	•
253		27	0920E		0951 0942D 0951	S11	W62	4327		22.7								20		.4	
			0920f.		0942D	\$11	W62	4327		22.7					٧	0920		20			
	HTPR	27	0925E							22.8					С			20		.4	
			0925E		0947			-	09	28.0					С	0931		10		.1	
255	HTPR	27	1108	1113	1117	\$ <i>2</i> 0	E08	4324	09	28.1	9	SF			С	1113		10		.1	
256	HTPR	27	1140	1152	1200	\$11	W62	4327	09	22.8	20	SF			С	1152		10		•2	
0257			1150*					4323C		28.1					_			16		•1	
			1150	1223 1223			_	4323C 4323C		28.0 28.1	-			3	C	1223		10 22		-1	
	KUMI	21	1221	1225	1233	317	EUO	40200	U 7	20.	14	٠,		,	·			22			
0258		27	1615	1617	1629D	S23	E10	4324	09	28.4	14D	SN						72		.7	EF
			1615					4324		28.4		SF		3	C			85		_	F
	HTPR	27	1627E		1629D	S23	E10	4324	09	28.4	2D	SN			С	1627		60		.7	E
		27	1608		1614	N	flan	e Patro	1												
			1622		1626			e Patro													
			1630					e Patro													
			1829		1858			e Patro													

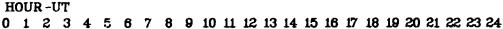
•			C+- ·	14-	 ·			NOAA/	~	40		1		0 4.	T1 .	ea Measurer	_	
Grp ∰	Sta !	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	USAF Region	Mo	11P Day	Dur (Min)	Imp Opt Xray	See	Obs Type	(UT)	Apparent (10 ⁻⁶ Disk)	(Sq Deq)	Remarks
				2118						1.0		SF			2118		.5	
	CULU									-				Ū	21.0			
0260	VAPA			01113				4324 4324		28.3 28.3	15 8	SN SN		С	0111	84 54	1.0 .6	EF J EJ
				0112				4324		28.4	10			č	0112		1.5	E
			0112					4324		28.3	14		3	С		98	•	F
	PALE	28	0112	0114	0136	\$18	E05	4324	09	28,4	24	SF	3	С		43		F
0261	ABST	28	0400	0407	0430	\$16	E36	4326	09	30.9	30	SF		С	0407	87	1.2	D
0262	ABST	28	0405	0407	0410	S15	WO 1	4323C	09	28.1	5	SF		С	0407	87	.9	Đ
0263	ISTA	28	0730		0739	S15	WO 1	4323C	09	28.2	9	SF						D
0264	HTPR	28	1430	1438	1452	S15	W07	4323C	09	28.1	22	SF		С	1438	20	•2	E
0265		28	1525	1525	1545	S20	W12	4324	09	27.7	20					30		
	RAMY	28	1525	1525	1541	S20	W11	4324	09	27.8	16	SF	3 3	С		38		
	HOLL	28	154 1E	15460	1549	S20	W12	4324	09	27.7	8D	SF	3	С		21		
		28	2031		2035	No F	lare	Patro	ı									
G266		29	00053	0009	0011	S22	₩12	4324	09	28.1	6	SN				34	.4	
			0005		0011			4324		28.1		SN		С	0009	40	.4	
	LEAR	29	8000	0009	0011	\$22	W12	4324	09	28.1	3	SF	3	С		29		
0267		29	02245	0239*	0309	S16	W13	4324	09	28.1	45	SF				89	1.1	F
			0224		0309			4324		28.0		SN	_	Ċ	0239		1.4	_
			0229		0309			4324		28.1		SF	3		0700	68		F
	PURP	29	0300E	0300	0309	516	W12	4324	09	28.2	90	SF		Р	0300	68	.8	
0268				0438	-					29.0	-	SN				86	1.0	
				0438U				4324		29.0		SF		P	0438		6	
	YUNN	29	0437	0438	0439	521	WU4	4524	09	28.9	2	SN		С		113	1.3	
0269		29	0519*	0522*	0540	S20	W16	4324	09	28.0		SF C 1.3				46		F
			0519					4324		28.2		SF C 1.3				56		_
	LEAR	29	0536	0540	0546	S19	W18	4324	09	27.8	10	SF	3	С		35		F
0270		29	0622*	06258	0650	S20	W19	4324	09	27.8	28	SF				132	2.0	BEIJK
	ABST		0622		0645			4324		27.7		1N		С	0625	261	3.2	EJK
				0633						27.8		SF	3			66	_	
	HTPR	29	0716E		0724D	S20	W19	4324	09	27.8	8D	SF		С	0716	70	.7	BEI
0271	HTPR	29	0925	0930	0934	S27	W09	4324	09	28.7	9	SF		С	0930	10	.1	
0272				1042						28.0		1N		_				
			1032		1052					28.0			_	С				
	KANZ	29	1034	1042	1058	519	w20	4524	09	27.9	24	11-	2					
0273	KANZ	29	1138	1138	1150	S20	W10	4324	09	28.7	12	SF	2					
0274			1513	15135				4324		28.6	12		_	_		48		HK
			1513	1513	1525	:		4324		28.6			3	C		22		K
	RAMY	29	1513	1518	1525	521	W13	4324	09	28.6	12	SN	3	С		74		HK
0275	RAMY	29	1638	1639	1700	S21	W14	4324	09	28.6	22	SF	3	С		67		
		29	1924		2103	No I	Flar	e Patro	ı									
0276	LEAR	30	0107	0110	0124	S18	W22	4324	09	28.4	17	SF	3	С		41		
0277	PURP	30	0236	0237	0240	S18	W22	4324	09	28.4	4	SN		С	0237	27	.3	D
				0322					09	28.4	17	SF	3	С		36		
												SF		С	0406	50	4	
UZ/9	CULG	20	いいつ	0406	U4U Y	31/	#Z/	4344	Y	28.1		JI				JU	.6	

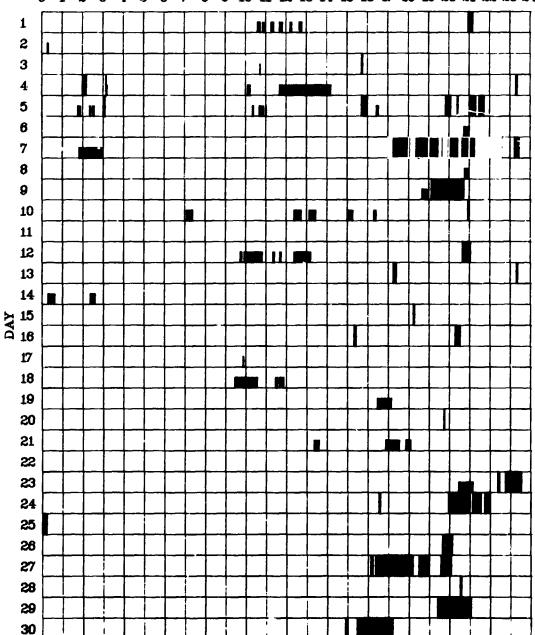
								NOAA/					 			Area Measurem	nent	
Grp #				Max (UT)				USAF Region		MP Day	Dur (Min)				Time (UT)	Apparent (10 ⁻⁵ Disk)	Corr (Sq De //	Remarks
0.280								4324					 		0558	90		
0200	CULG	00	0550	0770	00000	324	WZ4	4324	U	20.4	40	ЭF		r	0220	90	1.1	r;
0 28 1	HTPR	30	0822	0825	0830	S20	W26	4324	09	28.3	8	SF		С	0825	10	.1	
0282	HTPR	30	0848	0851	0902	S20	W37	4324	09	27.5	14	SF		С	0851	10	.1	
0 283		30	0935	09366	0950	S19	W30	4324	09	28.1	15	SN				80	1.0	DK
								4324			230			٧	0942		1.2	D
	HTPR	30	0935	0936	0950	\$19	W29	4324	09	28.2	15	SB		С	0943	60	.7	K
0 284								4326		30.0		-				32	.4	EF E F
				1148				4326	-	30.9				С	1148		.4	Ε
	RAMY	30	1146	1147	1200	514	E05	4326	09	30.9	14	SF	3	С		25		F
0285	KANZ	30	1146	1146	1206	NO 7	W04	4324C	09	30.2	20	SN	2					
0286	HTPR	30	1310		13350	S19	W 40	4324	09	27.5	250	SF		С	1312	10	.1	
0287	HTPR	30	1322		1335D	S23	W28	4324	09	28.4	13D	SF		С	1331	20	.2	
0288	HTPR	30	1424E		1452D	S23	W40	4324	09	27.5	28 D	SF		С	14 29	30	.4	Ε
		30	1453		1457	No I	Flare	Patro	1									
0289	HTPR	30	1509		1526D	\$15	w70	4323B	09	25.3	170	ŞF		С	1516	10	.2	
		30	1527		1555	No I	Flar	e Patro	1									
			1600			-		Patro	-									
			1624					Patro	-									

"Remarks":

- A = Eruptive prominence whose base is less than
- 90° from central meridian.
 B = Probably the end of a more important flare.
- C = Invisible 10 minutes before.
- D = Brilliant point. E = Two or more brilliant points.
- F = Several eruptive centers.
- G = No visible spots in the neighborhood.
- H = Flare accompanied by high-speed dark filament.
- I = Active region very extended.
- J = Distinct variations of plage intensity before or after the flare.
- K = Several intensity maxima.
- L = Existing filaments show signs of sudden activity.
- M = White-light flare.
- N = Continuous spectrum shows effects of polarization.

- O = Observations have been made in the H and K lines of Ca II.
- P = Flare shows helium D3 in amission.
- Q = Flare shows Baimer continuum in emission.
- R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
- S = Brightness follows disappearance of filament in same position.
- T = Region active all day.
- U = Two bright branches, parallel or converging.
- V = Occurrence of an explosive phase: important, expansion within roughly 1 minute that often includes a significant intensity increase.
- W = Great increase in area after time of maximum intensity.
- X = Unusually wide H-alpha line.
- Y = System of loop-type prominences.
- Z = Major sunspot umbra covered by flare.





Times of no flare patrol, shown here as shaded areas, combine reports from the observatories listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind, that is, of neither visual nor cinematographic; portions of a panel with only the bottom half shaded mark times of strictly visual patrol.

Abastumani
Athens
Bucharest
Catania

Culgoora Haute Provence
Holloman
Istanbul
Kandilli

Mitaka	
Monte M	ario
Palehua	
Peking	
Purple	Mt.

NUMBER OF SOLAR FLARES (From the Grouped Flare Listings)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct	Nov	Dec
1966								391	558	432	417	543
1967	796	589	1009	694	771	629	907	911	573	946	775	1109
1968	1037	773	519	460	768	697	573	611	616	772	556	640
1969	581	504	669	655	839	694	489	551	540	643	566	422
1970	466	646	578	688	722	836	954	780	811	797	687	667
1971	598	505	387	546	461	430	713	673	518	375	431	394
1972	384	599	621	361	614	541	404	515	371	408	175	210
1973	221	171	410	453	388	270	232	182	353	201	136	163
1974	127	148	79	364	255	204	360	187	270	366	153	81
1975	68	82	69	19	42	85	196	346	68	38	127	25
1976	69	18	180	60	38	48	6	47	57	23	13	55
1977	5.1	77	18	76	64	210	140	140	250	252	107	336
1978	274	588	338	526	330	460	533	346	554	499	418	648
1979	926	781	731	731	907	772	750	821	901	1018	888	786
1980	703	689	621	1092	811	956	763	720	924	988	1027	838
1981	578	782	914	915	658	592	893	982	680	836	773	615
1982	631	763	783	490*	553*	769*	696*	753*	616*	545*	565*	749*
1983	332*	220*	337*	346*	609*	561*	427*	395*	289*			

^{*} Preliminary